

University News

MONDAY, DECEMBER 27, 1993

Rs. 5.00

Sri Sathya Sai Institute Convocation



From L to R : Sir Anerood Jugnauth, Prime Minister of the Republic of Mauritius, who delivered the convocation address at the Sri Sathya Sai Institute of Higher Learning, Bhagwan Sri Sathya Sai Baba, Chancellor and Dr. K. Hanumanthappa, Vice-Chancellor of the Institute.



IGNOU

Programmes In Engineering and Computer Applications

Indira Gandhi National Open University invites applications for admission in Engineering and Computer Applications programmes for the session beginning from July, 1994. The following programmes are on offer :

- I) Advanced Diploma in Construction Management (ADCM)
- II) Advanced Diploma in Water Resources Engineering (ADWRE)
- III) Post Graduate Diploma in Computer Applications (PGDCA)

ENGINEERING PROGRAMMES

Advanced Diplomas leading to B.Tech.

The employment related programmes, planned in participation with academics, industry, professional bodies and employer groups are for Diploma holders who are in employment. Programmes are of minimum 2-year duration each (but 3 years for the first batch of students) and will be followed by additional 2 years study leading to B.Tech Civil (Construction Management) and B.Tech Civil (Water Resources Engineering), respectively.

Eligibility

- (a) For ADCM. Employed candidates possessing Diploma in Civil Engineering from a recognised polytechnic or its equivalent.
- (b) For ADWRE. Employed candidates possessing Diploma in Civil/Agricultural Engineering from a recognised polytechnic or its equivalent.

COMPUTER APPLICATIONS

PGDCA leading to MCA

Post-Graduate Diploma in Computer Applications (PGDCA) programme is pitched broadly at the 'A' level of the DoE scheme. After successful completion of this diploma, students may continue with the IGNOU to complete an MCA programme. They can also choose to move to any other institution to do the 'B' level and later 'C' level of the DoE scheme. The computer education programme of IGNOU, thus provides a very open structure with linkages with the DoE scheme. The course content for the PGDCA includes a significant component of practical training at which attendance is compulsory. Counselling and practical sessions are conducted by qualified professionals at identified Study Centres.

Eligibility Criteria

Admission is open to graduates from any stream. However for the students from non-science stream, the Bachelor's Degree should have been of three years duration, and the student must have passed the 10+2 or equivalent examination with Mathematics as one of the subjects. Persons having professional qualifications such as AMIE or Grad-IETE and such other qualifications which are equivalent to a Bachelor's degree are also eligible for admission.

Minimum Duration :

One year for the PGDCA. Three years for the MCA. The Open University system allows learners to take longer time to complete the programme depending upon the learner's circumstances and the University's rules and regulations.

NOTES : (Common to all the above Programmes)

- i) Admissions to all above programmes will be through qualifying in respective Entrance Examinations which will be conducted on Sunday, 27.2.1994. The entrance examinations will be held at the towns where the 16 Regional Centres of IGNOU are located.
- ii) Eligible candidates, who fail to receive their Hall Ticket/Roll Numbers for entrance examination by 11.2.1994, are advised to contact Regional Directors concerned.
- iii) Admission to all the above programmes will be on the basis of merit list determined by the results of the entrance examination depending on the number of seats available at the Study Centres opted for by the applicant.
- iv) There is no age limit for admission.

v) Application Form and Guide for Applicants can be had from the Registrar (Admissions Division), Indira Gandhi National Open University, Maidan Garhi, New Delhi- 110 068 or any of the Regional Directors, IGNOU on payment of the required fee as follows (a) for Programme in Engineering Rs 50/- (Rupees fifty only) and (b) for Programme in Computer Applications, Rs 40/- (Rupees forty only). This fee for Application Form and Guide for Applicants should be paid either in cash or by way of IPO or a Demand Draft drawn in favour of IGNOU and payable at the city of the Regional Centre concerned or New Delhi, as the case may be. Candidates who wish to obtain Application Form by post have to add Rs. 10/- more towards postage, etc.

- vi) A student is allowed to take admission in only one programme at a time.
- vii) Medium of instruction is English.

ADRESSES OF IGNOU REGIONAL CENTRES :

1. Cess Building, Nizamia Observatory Compound, Begumpet, Hyderabad - 500 016.
2. 170-A, Patliputra Colony, Patna - 800 013
3. Vishwa Yuva Kendra, Teen Murti Marg, Chanakyapuri, New Delhi - 110021
4. 268-C, Pitru Ashish, Near Avani Flats, Ishwar Bhawan Road, Navrangpura, Ahmedabad - 380 009
5. Govt. College Campus, Railway Road, Kamal - 132 001 (Haryana)
6. Willy's Park, Chaura Maidan, Shimla - 171 004
7. Directorate of Collegiate Education Premises, Sheshadri Road, Bangalore - 560 001
8. Cochin University of Science & Tech. Campus, Cochin - 682 022
9. E-7/62, Arera Colony, Near Bus Stop No 11, Bhopal - 462 016
10. Symbiosis International Cultural Centre, Senapati Bapat Road, Pune - 411 004
11. Sunny Lodge, Nongthymmai, Nongshilleng, Shillong - 793 014
12. 222/1, Shastri Nagar, Unit-IV, Bhubaneshwar - 751 001
13. C-113, Shivaji Marg, Tilak Nagar, Jaipur - 302 004
14. 'Arulagam', No 133, Charnier Road, Nandanam, Madras - 600 035
15. B-1/33, Sector 'H', Aliganj, Lucknow - 226 020
16. Bhaskar Bhawan, 4th Floor, North Block, Bidhan Nagar, Calcutta - 700 091

LAST DATES for all the above Programmes

- i) Requisition for supply of Application Form by post should reach the concerned offices on or before 7.1.1994. The envelope containing the requisition for Application Form should be superscribed as 'For Engineering Programmes' or 'For Computer Applications Programmes' as the case may be. Sale of application will be closed at the sale counters at 3 p.m. on 21.1.1994.
- ii) Last date to receive the filled-in Application Forms along with necessary copies of certificates by the Regional Director concerned is 21.1.1994.

Late and incomplete filled-in forms and application forms without copies of required certificates shall be summarily rejected. No correspondence will be entertained in this regard.

REGISTRAR (ADMISSIONS)

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Editor :
SUTINDER SINGH

English Language Teaching Programmes in India Focus on Evaluation

Shivendra K. Verma*

We have had a variety of English Language Teaching (ELT) programmes in India at the secondary and tertiary levels: programmes organised by the District Centres, ELT Institutes (ELTIs), Regional Institutes of English (RIEs), Regional Colleges of Education, and NCERT, Campaign Centres at the secondary level; by Central Institute of English and Foreign Languages (CIEFL), Academic Staff colleges and ELT Centres/Cells at the tertiary level. In addition, these institutions have been organizing a variety of workshops, seminars, conferences, and short courses. They have produced teaching and testing materials designed to improve the learners' competence in English, but we haven't had any scientific evaluation of ELT programmes in India because our focus so far has always been on shaping Indian Data in terms of new theories of language teaching and not on letting theories emerge out of classroom interactions in a multilingual setting. We have had a number of review type evaluations of ELT programmes : Study Group Report I, Study Group Report II, Bannerjee Report, Ford Foundation Report, Kachru-Turner Report, Recommendations of the Seminar of Heads of University Departments of English, UGC Syllabus Reform Reports I and II. All these reports are based on our perception of what should go into an ELT programme and our perceptions have always been conditioned by our understanding of how language works and how children acquire their first language (L_1), Second Language (L_2), and Third Language (L_3). We haven't studied the processes and forces which help learners in rural and urban settings capture the systems and subsystems underlying English as their L_1 and use them with confidence in a variety of situations. We have offered courses in Linguistics, Grammar, Methods, Materials Production and Interpretation of Literature but we haven't designed any course to show how to interrelate these courses and organise them into a course in the effective teaching and learning of English as a second language. I must hasten to add here that the project 'Evaluation of CBSE Materials' is a move in the right direction. It may be useful at this stage to look at 'evaluation' & 'ELT Programmes' as mutually defining concepts. I would like 'evaluation' and 'monitoring' to be built into ELT programmes.

ELT programmes in India may be viewed as a network of processes (i) creating English-based, white-collared bilinguals, (ii) English-based diglossia — High English (HE), & Low English (LE), (iii) English-Centred switching and mixing, and (iv) a variety of new 'Englishes'. These programmes are designed to help learners learn how to mean in a multilingual setting — which means helping them acquire the ability to switch their linguistic gears as many times as they play different personal, interpersonal and institutional roles.

Evaluation in this context may be said to have the following aspects : formal-academic & socio-cultural. At the formal-academic level we have used the concept of 'evaluation' to mean perceptible changes in curriculum, changes in teaching & testing materials, changes

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in methodology, changes in attitudes, and changes in the linguistic behaviour of learners. It shows how feedback derived from different sources does not only give us new insights into our ELT programmes but also makes us look at new facts about ELT and thereby helps us redesign our programmes. It also enables us to have a new look at the roles of grammar and literature in ELT and look for answers to the following questions : How can we activate learner's grammar? How can we make grammar work? How can we use literature for effective language teaching? How can we move from literature with a capital L to literatures with small 'l'? How can we help learners drive smoothly out of the slow lane into the fast lane?

At the socio-cultural level the concept of 'evaluation' is related to language planning — to the evaluation of ELT programmes keeping in view the status, roles and functions assigned to English. The questions that we have to answer are :

Are our ELT programmes based on the new roles and functions assigned to English?

Are they designed to help learners learn how to mean in Culture 1 and also in Culture 2 ?

Do they cater to the needs of the weaker sections of the community ?

How do these programmes interrelate the following activities : learning English, learning through English, learning about English ?

The time has come when we must make our system sensitive to the two-way interaction between theories of language, theories of language learning and theories of language teaching on the one hand, and learners' needs, learners' taking-in capacity, and teachers' linguistic, communicative, and pragmatic competence on the other.

In making our ELT programmes functional and effective, it may be useful to examine the following points :

(i) language choice and language ordering in a multilingual setting;

(ii) the role of English as a 'source' language;

(iii) the status of English as an associate national official language and also as an associate national link language;

(iv) the function of English as an international link language, as a language of international trade, science, technology, aviation, computerisation, medicine and also of national and international workshops, seminars and conferences.

Some of the questions that arise in this connection are fundamental; they go well beyond the limited sphere of ELT and are intimately related to

language planning embedded in educational planning:

(a) Can the basic objectives of ELT be achieved by treating English as a specialized subject, isolating it from the rest of the curriculum or by integrating it with the teaching of languages and other subjects within a common cognitive framework in our multilingual context ?

(b) How can pre-service and in-service training programmes be dovetailed in such a way that the teachers at the secondary and tertiary levels receive continuous professional support throughout their career and also opportunities to update their knowledge and sharpen their competence in the use of language ?

(c) Can this be achieved by networking teacher-training institutions : District Centres, ELTIs, CIEFL, RIEs, RCEs, NCERT, Campaign Centres, B.Ed Colleges, ELTCs and Academic Staff Colleges ? What should be the pattern of this networking ?

(d) Should we set up Resource Centres at the district level ?

(e) How should we go about integrating needs-analysis, curriculum reform, production of materials, new methodology, and teacher-orientation programmes ?

In the context of teaching English as L₂ in the Indian setting, the classroom acquires a special significance. It represents a complex network of socio-physical features and human factors. Individual learners bring with them their own native languages and culture, proficiency level, individual styles of learning, motivation & attitudes toward ELT, and also their creativity. Individual teachers bring with them their own native languages and their distinctive style, competence in English, and a variety of methods and materials. The system also has its own marked properties : organizational, academic, linguistic, & socio-cultural. In planning ELT programmes we must keep these factors in view and develop strategies for harnessing the linguistic resources that learners and teachers bring with them. It should be the duty of all teachers to instil in their pupils a civilized respect for other languages, for all languages are rule-governed systems of communication and none is linguistically superior. This may also go a long way in dispelling the illusion created by a culture-based addiction to a somewhat xenophobic perception that the inability to speak English "properly" is a sign of ignorance. In designing our new projects and programmes in the field of ELT, we must keep in view the fact that we are teaching and learning English in India and the expression 'in India' represents a domain which is marked by plurality of languages and cultures.

Research Needs of College Faculty

R. Srinivasan*

Teaching, research and extension happen to be the three dimensions of higher educational institutions. In most of the arts and science colleges the concentration is entirely on teaching at the undergraduate as well postgraduate levels though of course they do some extension work such as NSS, organizing adult education centres under specific assistance from government, UGC and other agencies. As far as research is concerned, the faculty in these institutions especially those serving in smaller towns have a fear that facilities are inadequate in their places and they may face hardships in undertaking research studies. The investigator out of curiosity circulated a questionnaire to the teachers working in arts and science colleges possessing only Master's Degree in their respective disciplines to elicit their views on problems/issues in pursuing doctoral studies.

The questionnaire was mailed to 300 teachers working in arts and science colleges in smaller towns in Tamilnadu where there are not much facilities for doing research. The questionnaire was also administered personally to the faculty working in few colleges by the investigator. On the whole a total of 183 responses (67%) were received and the analysis heralded the following information.

1) Nearly 85% of the respondents felt that undertaking doctoral research was vital and will improve their morale. At the same time they felt that since they had no exposure to research previously they had some apprehensions in identifying suitable personnel and broad areas of research.

2) 140 of the 183 respondents (76%) reported that they were mostly tied with routine academic work and they had no access to advertisements/notifications and circulars calling for applications for the award of research fellowships.

3) Nearly 40% of them opined that whenever they referred to some standard journals in their subjects they were unable to get a concise idea about the exact nature of topics to be identified. They further added that the journals were not available to them regularly.

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4) Most of them felt that there was a need to expose them to fundamentals of research and the respective universities must play a lead role in organizing seminars to expose them to the research potentialities in their subjects. They suggested that if this was done then their contacts with the professors in the universities would also be strengthened and they will approach them freely. This type of encouragement will give a big boost to them indeed.

5) While the teachers of social sciences and humanities subjects felt that they could conduct their studies in their places of work itself with regular/periodical consultations with their research supervisors, those of science subjects openly admitted that their laboratories were not equipped to such an extent and they raised doubts whether the universities will come forward to provide them the necessary laboratory facilities.

6) The respondents were unanimous in their suggestion that the authorities and universities should earmark a particular period each year and permit teachers to go to various libraries and for consultations with experts treating the period as on duty to enable them to keep their motivations and to complete their studies within the stipulated time.

7) An extensive variety of areas and probable issues/topics on which studies could be undertaken in the various subjects should be published by the research laboratories/institutes for giving guidelines to prospective researchers.

8) Periodical interface among researchers in a discipline should be organised to have fruitful interactions under the aegis of subject experts to provide proper highlights in the respective topics. Such a cross fertilization if arranged through research colloquia could help them locate useful sources of assistance and to tap them optimally.

9) Research forums should be started in all major subjects of study at the college level and periodical seminars should be arranged. Every university should take a lead in this direction in one or two subjects considering the expertise and infrastructure available with them. All the universities in the state should disseminate their research studies

to the other universities atleast within the state so that duplication of research could be avoided. All studies which have policy implications should be rewarded and the universities should extend all assistance to researchers by providing needed financial support.

10) At present research scholars, excepting those working in universities, have practically no facility to do independent research studies/projects. The governments and universities should sanction funds to encourage college faculty to undertake feasible studies within their system.

11) In order to establish research as a way of life in higher education the schedule of work of every teacher should be apportioned to reflect research-work as an integral part of teaching.

12) The journalists' concept of 'Nose for News' should have a parallel in higher education so that teachers have a nose for problems that are research worthy and socially contributive, to be taken up alongside classroom performance.

13) A good teacher in higher education is really an ambivert exhibiting characteristics suited to research as an indepth analysis and teaching as a social application respectively.

14) In higher education, the affective domain is to be approached through the cognitive and conative domains as developing a 'feel' for the subject of study is the crux of the hidden curriculum in tertiary education. Research is an indication of intense love for the subject on the part of the teacher whose bounden duty is to transplant this devotion in the minds of his learners in the course of his teaching extended to social amelioration.

In fine, only if a fillip was given to research the higher educational scenario will be complete reflecting all the three aspects adequately. Now negligence of research component was felt in academic circles and if steps were taken to promote research activities the colleges could serve the society still better. It is time all possible efforts are made to see that the entire faculty possesses a research bent of mind.



IGNOU

Applications are invited from Indian citizens for filling up a post of Professor in Programme Evaluation in the Indira Gandhi National Open University:

Scale of Pay : Rs. 4500-150-5700-200-7300 plus usual allowances as admissible under the University Rules

Qualifications :

- (i) M.A./M.Sc. in Statistics with Ph.D in any discipline where statistical tools/methods are extensively used.
- (ii) Research qualifications and at least 10 years experience broadly conforming to the requirements in areas like evaluation of educational programmes, survey designs covering large scale postal and field surveys, data management covering collection, organisation, analysis and presentation of data, and preparation of quantitative study reports for purposes of modifications in policy and implementation of reforms.

Desirable : Experience in evaluation of programmes in Distance Education.

Application form and other relevant details can be obtained from the Teacher's Affairs Division, Block No. 4, Room No. 20, IGNOU, Maidan Garhi, New Delhi - 110 068, on payment of Rs. 25/- by candidates of General Category and Rs. 10/- by SC/ST candidates by Demand Draft drawn in favour of IGNOU. In case application form is to be sent by post, please enclose a self-addressed envelope of the size 13 cms x 28 cms, duly stamped for Rs. 2/-. Last date for receipt of completed application form is 24-1-94.

Note : Those candidates who applied for the position of Professor in Programme Evaluation against advertisement No. 9 of July, 1993 need not apply again.

Advt. No. 11/Recit/93

REGISTRAR

Participation in Sports and Development of Self-Directed Personality

Gurdeep Singh*
N.K. Chadha**

Introduction

The term "Personality" has many meanings, but in general, its application is based upon the assumption that there are consistencies in behaviour which are evidenced by an athlete/individual in a variety of sports situations.

Alderman defines "Personality" as an integration of merging of all the parts of one's psychological life — the way one thinks, feels, acts and behaves".

Cattell views 'Personality' as a complex set of multiple traits that are identified as inferred on the basis of observed behaviour.

The personality make-up of sports persons participating in team games/or individual events are different (Newman, 1968; Kroll & Grandshah, 1968; and Kane, 1965).

In another similar study conducted by Martens, 1983, and Koanig, 1969, found that personality differences existed between athletes and non-athletes.

Personality traits are distinctive ways of behaving, more or less, permanent for a given athlete and depending on both native and environmental factors. Personality traits are neat and succinct ways of describing multifold aspects of behaviour. Traits are regarded as fundamental units of human personality.

The Problem

The purpose of the present study was to assess and analyse the 'personality traits' of sports persons participating in 'team games', 'individual events' and 'professional sports' and to find out the differences, if any, between these three groups of players.

Samples

Group-A	Group-B	Group-C
Players from Individual Events	Players from Team Games	Players from Professional Sports
N=30	N=30	N=30
Age: 18-22 years	18-22 years	18-22 years
1. Athletics 2. Swimming 3. Gymnastics	1. Hockey 2. Football 3. Basket Ball	1. Cricket 2. Lawn Tennis 3. Badminton

Measuring Instrument

Cattell's 16 P.F. was used to collect the data for the research purpose. The instrument measures 16 different personality traits of an individual (Given in the Results).

Procedure for Data Collection

The data were collected during the training camps of various Delhi University teams before their actual participation in Inter University Championships. Only those players were selected who had experience of more than five years of participation at the inter university level.

Table 1 : Comparison between players involved in Individual games and Team games

Personality factors	Individual games players	Team games players
A. Reserved Vs Outgoing	2.0	5.3
B. Less Intelligent Vs More intelligent	4.1	4.5
C. Affected by feelings Vs emotionally stable	1.8	3.8
E. Submissive Vs Dominant	7.9	5.5
F. Serious Vs Happy-go-lucky	2.2	4.6
G. Expedient Vs Conscientious	1.5	6.0
H. Timid Vs Venturesome	8.1	5.9
I. Tough minded Vs Tender minded	1.0	4.8
L. Trusting Vs Suspicious	5.5	5.2
M. Practical Vs Imaginative	1.4	5.6
N. Forthright Vs Shrewd	8.5	5.0
O. Self assured Vs Apprehensive	1.9	4.6
Q1. Conservative Vs Experimenting	2.5	6.1
Q2. Group dependent Vs Self-sufficient	8.2	5.8
Q3. Uncontrolled Vs Controlled	7.5	4.9
Q4. Relaxed Vs Tense	8.0	4.7

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** Department of Psychology, University of Delhi, Delhi.

Table 2 : Comparison between players involved in Individual events and Professionals sports

Personality factors	Individual games players	Professional players
A. Reserved Vs Outgoing	2.0	7.3
B. Less Intelligent Vs More intelligent	4.1	7.9
C. Affected by feelings Vs emotionally stable	1.8	7.8
E. Submissive Vs Dominant	7.9	6.5
F. Serious Vs Happy-go-lucky	2.2	7.6
G. Expedient Vs Conscientious	1.5	6.9
H. Timid Vs Venturesome	8.1	7.9
I. Tough minded Vs Tender minded	1.0	6.8
L. Trusting Vs Suspicious	5.5	7.2
M. Practical Vs Imaginative	1.4	7.6
N. Forthright Vs Shrewd	8.5	6.8
O. Self assured Vs Apprehensive	1.9	1.6
Q1. Conservative Vs Experimenting	2.5	7.1
Q2. Group dependent Vs Self-sufficient	8.2	6.8
Q3. Uncontrolled Vs Controlled	7.5	7.9
Q4. Relaxed Vs Tense	8.0	7.7

Table 3 : Comparison between players involved in Team games and Professionals sports

Personality factors	Professional players	Team games players
A. Reserved Vs Outgoing	7.3	5.3
B. Less Intelligent Vs More intelligent	7.9	4.5
C. Affected by feelings Vs emotionally stable	7.8	3.8
E. Submissive Vs Dominant	6.5	5.5
F. Serious Vs Happy-go-lucky	7.6	4.6
G. Expedient Vs Conscientious	6.9	6.0
H. Timid Vs Venturesome	7.9	5.9
I. Tough minded Vs Tender minded	6.8	4.8
L. Trusting Vs Suspicious	7.2	5.2
M. Practical Vs Imaginative	7.6	5.6
N. Forth-right Vs Shrewd	6.8	5.0
O. Self assured Vs Apprehensive	1.6	4.6
Q1. Conservative Vs Experimenting	7.1	6.1
Q2. Group dependent Vs Self-sufficient	6.8	5.8
Q3. Uncontrolled Vs Controlled	7.9	4.9
Q4. Relaxed Vs Tense	7.7	4.7

Analysis

Table 1

1. Participants of individual events as per sten score, were found to be reserved, slightly detached, aloof and stiff in comparison to participants of the team games.

2. Players of individual events were found to be less intelligent than the players of team games, on account of their stereotyped activities and take more time to grasp the pattern of strategies of given sports situations.

3. Athletes of individual events were found to be more individualistic and self-centered in their practical approach.

4. Players of group activities /team games tend to be more extrovert and self-confident.

5. Individual event performers are tough-minded and judicious.

Table 2

1. The performers of professional sports were found to be more outgoing, more emotionally stable and possessing a trait of dominating personality during intense sport competitions.

2. Professional players being anxious to achieve better were found to be more tense, suspicious of interference and demanding people. Team-mates accept responsibility with utmost care than the players of individual events.

3. Professional players were found to be more cautious and calculating in their approach/actions.

4. The psycho-regulation of professionals were found to be sound in their imagination and less dependent on others.

5. Professionals were more serious in their assignments related to the sports than the players of individual events.

Table 3

1. Team performers were found to possess a balanced personality as compared to individual events and professionals.

2. Team performers were found to be group dependent in their playing strategies.

3. Team players were less imaginative than the professionals.

4. Team players were found to be more relaxed than their professional counterparts and also individual performers.

5. Feelings of team participants were found to be easily affected by the presence of others — audience and opponents.

Conclusion

The lessons learned on the sports field contribute significantly in shaping human personality. One learns to imbibe maintaining balance between patience and risk-taking to achieve success in other walks of life. Ultimately, it is the reflection of self-directed personality.

Academic and Non-Academic Problems Related to English, Faced by the Home Science Students of Baroda

Uma Joshi*
Sushmita Mandal**

In India, education is affected due to the diversities of languages. The great variety of languages without any common one in India poses one major problem to educationists that of medium of instruction and teaching mother tongue at school. It is found that English language instead of local languages has been the linking thread for the whole of India for years together. English has been taught in India for nearly two centuries. The "Quit India" movement also generated "Quit English" feelings in the freedom fighters and the masses. But, after independence, it was retained in India because its complete and abrupt rejection would have been disastrous to us. English at national and international level continues to serve as the "window on the world". It will continue to be a source language providing access to the vast and growing knowledge in every field of study. English has expanded to such an extent that certain best literary works of the other world languages have been translated in English due to the large numbers of English reading people. English is the library language for wider communication. Most of the books for higher education are in English. English is the language of mass media in the second language situation.

A person who aspires for social, economic and educational upward mobility in his own state, in the country and internationally, will be gravely handicapped without competence in English. Most of the colleges and universities are imparting education in English, and the students coming from vernacular medium schools face acute problems related to English when they join colleges. As majority of the colleges have English as medium of instruction, the students are required to communicate in English. The students of vernacular medium fail to do well in their studies due to lack of competence in Eng-

lish. Thus, a sudden change in the medium of instruction affects the career of the students, until and unless a good and steady effort is made to improve English competence. This can be done only if the specific problems of the students are known.

Objectives

Identification of the problems was done with the following objectives :

1. Identifying the academic and non-academic problems related to English, faced by the students of the Faculty of Home Science, Baroda.
2. Finding out the relation of the problems (overall, academic and non-academic) related to English faced by the students and their
 - a. level of study
 - b. major of study
 - c. parents educational level
 - d. English background
 - e. opinion regarding English
 - f. adaptation to modernity

Methodology

The population of the study consisted of all the undergraduate and postgraduate students of the Faculty of Home Science, Baroda. Sample of the study comprised 216 respondents from the IIInd year, IIIrd year, P.G. Diploma, Junior masters and Senior masters of the Faculty of Home Science, Baroda.

Questionnaire was used as a tool to collect the data. It consisted of the academic and non-academic problems related to English faced by the students of the Faculty of Home Science, Baroda.

The tool consisted of the following sections :

Section	Content	Number of Items	Response System
I.	Background Information	3	Checklist + Open ended questions

* Lecturer, Dept. of Education and Extension, M.S. University, Baroda.

** Lecturer, Banasthali Vidyapith, Banasthali (Rajasthan).

II. Academic problems related to English	14	structured items with rating scale
III. Non-Academic problems related to English	14	structured items with rating scale
IV. Opinion regarding importance of English	18	structured items with rating scale
V. Suggestions by the respondents for improving English	2	open ended questions and structured items with rating scale
VI. Alex Inkeles scale of adaptation to modernity	13	Checklist and open ended questions.

For pretesting 20 students were taken randomly. Test-retest method was used to check the reliability. Correlation was found to be 0.77. Data were collected personally by the researchers. After the data was collected they were recorded and subjected to analysis. Scoring and categorization was done. Frequencies and percentages were calculated to show the distribution of the sample, in terms of level of study, major of study, Chi-square test was used to find out the relationship between the overall problems, academic and non-academic problems related to English, faced by the students and the selected variables.

Major Findings

I. Background Information

- i) Higher percentage of the respondents (55.56%) were from undergraduate level as compared to the postgraduate level.
- ii) Higher percentage of the respondents were from child development major (21.30%) followed by education and extension major (19.44%).
- iii) Higher percentage of the respondents' parents were educated upto graduate level.
- iv) Higher percentage of the respondents' fathers were graduate (48.15%) and postgraduate (30.09%) as compared to the mothers.
- v) Higher percentage of the respondents' mothers were graduate (40.75%) followed by secondary passed (19.44%).
- vi) Higher percentage of the respondents (57.40%) started learning English from pre-primary level.
- vii) Majority of the respondents (68.53%) had favourable opinion regarding English.

- viii) Higher percentage of the respondents (56.95%) were modern according to Alex Inkeles' standardised scale on adaptation to modernity.

II. Academic and Non-academic problems of the respondents

- i) Higher percentage of the respondents faced the following academic problems.
 - a. presenting report and seminar in the class (57.40%).
 - b. answering immediately to the questions asked in the class (54.16%).
- ii) About fifty percent of the respondents had academic problems of taking part in the class discussions.
- iii) Majority of the respondents faced the following non-academic problems.
 - a. talking to highly professional person (73.14%).
 - b. participation in co-curricular activities e.g. debate and drama (68.98%).

III. Overall problems in relation to the selected variables

- i) Majority of the respondents (68.60%) did not have problems.
- ii) Significant relationship was found between the overall problems faced by the respondents and their
 - level of study
 - major of study
 - English background
 - adaptation to modernity.
- iii) High majority of the respondents from Junior (83.75%) and Senior (83.35%) masters did not have problems as compared to the second (63.35%) and third (55.00%) years.
- iv) High majority of the respondents from General Home Science (100%) had problems followed by little below sixty percent of the respondents from Education and Extension (57.15%).
- v) High majority of the respondents having mother's education upto graduation (84.10%) and postgraduation (80.75%) level did not have problems.
- vi) Majority of the respondents having father's education upto graduation (74.05%) and postgraduation (76.90%) level did not have problems.

- vii) High majority of the respondents who started learning English from pre-primary level (91.95%) did not have problems.
- viii) Majority of the respondents having favourable opinion about English (66.65%) did not have problems.
- ix) Majority of the respondents who were found to be modern (73. 95%) did not have problems as compared to the high percentage of the respondents who were conservative (61.30%).

IV. Academic problems in relation to the selected variables

- i) Majority of the respondents (71.75%) did not have academic problems.
- ii) Significant relationship was found between the academic problems and students' — level of study
— major of study
— English background
— adaptation to modernity.
- iii) High majority of the respondents from the postgraduate level (82.29%) did not have problems as compared to the respondents from undergraduate level (63.33%).
- iv) High majority of the respondents from General Home Science (100%) had academic problems followed by 50% of the respondents of the Education and Extension.
- v) High majority of the respondents having mothers' education upto graduate (86.35%) and postgraduate (88.45%) level did not have academic problems as compared to the respondents with mothers' education upto primary level (25.00%).
- vi) Majority of the respondents having fathers' education upto graduate (76.95%) and post-graduate (81.55%) level did not have problems.
- vii) High majority of the respondents who started learning English from pre-primary level (93.55%) did not have academic problems.
- viii) Majority of the respondents having favourable opinion regarding English (73.65%) did not have academic problems.
- ix) Majority of the respondents who were modern (78.65%) did not have academic problems.

V. Non-academic problems in relation to the selected variables

- i) High percentage of the respondents (67.13%) did not have non-academic problems.
- ii) Significant relationship was found between the non-academic problems and the — level of study
— major of study
— English background
— adaptation to modernity.
- iii) Majority of the respondents from Junior (81.40%) and Senior (77.80%) masters and postgraduate diploma (70.60%) level did not have non-academic problems.
- iv) High majority of the respondents from the General Home Science (85.00%) had non-academic problems followed by Education and Extension (54.75%) and Home Management (46.85%).
- v) High majority of the respondents having mother's education upto graduate (81.85%) and postgraduate (80.75%) level did not have non-academic problems.
- vi) Majority of the respondents having fathers' education upto graduate (72.10%) and post-graduate (76.95%) level did not have non-academic problems.
- vii) High majority of the respondents who started learning English from pre-primary level (87.90%) did not have non-academic problems.
- viii) Majority of the respondents having favourable opinion regarding English (72.30%) did not have non-academic problems.
- ix) Majority of the respondents who were modern (73.20%) did not have non-academic problems.

VI Suggestions given by the respondents for improving English

- i) High majority of the respondents suggested — teachers should provide learning experiences which help to improve English such as:
 - a. Class discussions on important points, questions and ideas of a lesson (95.35%).
 - b. reading of newspapers/books/magazines for related materials and reporting in the class (90.74%).

ii) High majority of the respondents suggested that

- students should make efforts on their own for improving their English (95.59%).
- join English coaching classes (82.42%) to improve their English.

Discussion

Findings revealed that level wise higher percentage of the respondents were from second year and third year. The reason was that usually the number of students at the undergraduate level is more than at the postgraduate level. There were about 30 students in all the undergraduate classes of the 5 areas i.e. Child Development, Clothing and Textiles, Education and Extension, Food and Nutrition, Home Management as well as General Home Science, whereas, at M.Sc. level and postgraduate diploma level, only ten or less students were there in each department of Faculty of Home Science.

Majorwise, highest percentage of the respondents, were from Child Development, followed by Education and Extension. The reason was, both the departments offer postgraduate diploma along with the under- and postgraduate degree programmes. Fathers were found to be more educated as compared to mothers, this could be due to the lesser importance being given to the girls' education as compared to that of the boys' in our society.

The reasons for facing the academic and non-academic problems could be many. The students may be poor in English and the experiences like reporting, answering in the class and taking part in the class discussion need the skill of explanation, discussion and public speaking in English. It requires confidence and competence in English. While in writing notes the students may be writing wrong notes and not realising their mistakes. Another reason could be that the students may be taking down the notes from their friends or copying them if they are from the books. The teacher may be dictating the notes and giving handouts. Therefore, very low percentage of the respondents had problems in writing and making notes.

For understanding books/articles, notices/circular, etc. students do not face problems. The reason might be that all the students read the same thing and discuss among themselves. The teachers teach in the class and explain it or the students discuss among themselves about the subject matter. The notices/circulars are of general interest. Therefore, those who cannot understand English, can also

get the correct information about the circulars and notices. Mostly, informal out-of-class discussions go on in the regional language, which helps students to get at least the central idea of the notices/circulars. Moreover, the students who are good in English translate the messages into the regional languages, which is understood by all others. Majority of the respondents faced the problems in talking to highly professional person and participating in cocurricular activities e.g. debate and drama. These require skills in speaking English fluently and confidently. These activities also require an individual to be free from stage fright. The reason might be that the respondents may be poor in English and feeling diffident to take part or initiative in such extracurricular activities because of the fear of being laughed at.

Writing letters to friends and relatives and reading magazines were the two problems faced by less than 25 percent of the respondents. The respondents may not be getting feedback in these kinds of non-academic activities. Therefore, they may not be fully aware of the problems faced by them. The respondents might read the magazines and get only the central idea or understand the story or article by seeing the pictures in the magazine. They might be feeling confident in writing letters, where they might be mixing English with other languages to convey their ideas. Thus, they must not have faced problems in both writing letters to friends and relatives and reading magazines in English.

Findings regarding academic and non-academic problems related to English revealed that higher percentage of the respondents from postgraduate level did not have the academic and non-academic problems as compared to the respondents from the undergraduate level.

It was seen that there was significant relationship between the problems faced by the respondents related to English and their level of study. It meant that as the level of study rose the academic and the non-academic problems faced by the respondents decreased. The reason could be that, the postgraduate students were exposed to a variety of learning experiences requiring them to communicate in English, for more number of years as compared to the undergraduate students. The postgraduate students must have learnt to cope up with the problems at the undergraduate level. By the time they come to postgraduate level, they have often undergone the experiences like reporting and presentation of seminar in the class, doing assignments, listening to the lectures, taking down notes and

making notes, etc. So, continuous exposure may have helped them to develop better competence in English.

Findings regarding the major of the study revealed that higher percentage of the respondents having academic and non-academic problems related to English were from the General Home Science followed by the respondents of Education and Extension major. It also revealed that least percentage of the respondents from Clothing and Textile major faced academic problems while in the case of non-academic problems the least percentages of the respondents facing problems were from Food and Nutrition. The reason could be that the nature of courses differ from one specialization to the other, which brings variation in the learning experiences the students get. Child Development, Education and Extension, and, Home Management are more descriptive in nature, whereas, Clothing and Textile calls for more of practical work and creativity. The Food and Nutrition require studies of more of the scientific facts, principles and theories. Thus, the respondents from Clothing and Textile may not have had much experience where writing descriptions or explanations are required. Therefore, they may not have realised the problems or maybe they were not aware of the problems they faced related to English.

Moreover, it has been observed that usually high achievers opt for Child Development and Foods and Nutrition majors as compared to Education and Extension and General Home Science, so less or number of respondents from Foods and Nutrition and Child Development majors had problems. It has been found that majority of the General Home Science students are low achievers. The highly educated parents are more conscious about their children's competence in English, so they make more efforts for the same. They speak in English at home, provide extra reading material, send them to English medium schools and to spoken English classes.

Significant relationship was found between the problems faced by the respondents related to English and their background. This means that as the number of years of learning English increased the percentage of the respondents having the academic and the non-academic problems decreased. The reason might be that more exposure to English develops better competence. The respondents who started learning English from the pre-primary level were exposed to English since childhood, so it becomes a part and parcel of their daily life. As they read, write and speak the other languages which

they learn from the beginning, in the same way they react to the English language. The respondents may have started reading English books, magazines or write assignments from their early childhood and may also have been forced to communicate in English in school as well as at home. These types of experiences are definitely going to show the positive outcomes. Therefore, less percentage of the respondents with more years of exposure to English had problems as compared to those who started learning English later in the school.

It was seen that higher percentage of the respondents having favourable opinion regarding English did not have both academic and non-academic problems, as compared to those respondents who had unfavourable opinion. The reason could be that as the individual grows, he/she develops own viewpoints and has faith in them. Thus, their having favourable opinion might have developed faith in importance of English and they might have worked hard or made efforts to improve their English.

Findings regarding adaptation to modernity revealed that there was significant relationship between the problems faced by the respondents related to English and their adaptation to modernity. It means that the modern respondents faced less academic and non-academic problems related to English. The findings revealed that higher percentage of the modern respondents did not have problems as compared to the conservative respondents. The reasons could be that English language is believed to be spoken by the modern and elite class of people. In trying to be westernized, people accepted English as the language of pride and thus tried to develop good command over it. Those who speak in English are believed to be modern so those who want to look modern, they make use of English to communicate. Thus, the respondents must have made efforts to develop competence in English.

Implications

Study groups of the class can be made according to their levels and maximum learning experiences requiring spoken and written English should be given.

Conclusion

The study throws light on the problems faced by the Home Science students related to English as a medium of instruction. In evaluation if some weightage is given to the correct spellings and grammar, then the students will be motivated to make efforts to improve their English. Though Home Science

students did not have many problems related to English, yet there were some specific problems which showed lack of confidence among the students besides the variables taken up in the study.

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CALENDAR OF EVENTS

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/Officer to be contacted
January 3-21, 1994	Winter School on Logic Programming and Related Topics	To present advanced level developments in Logic Programming	Indian Statistical Institute, Calcutta	Mr K. Sikdar Coordinator, Winter School on Logic Programming and Related Topics ISI, 203 B.T. Road, Calcutta 700 035
February 10-11, 1994	National Symposium on Advances in Veterinary Research	Theme : Animal Health and Production	Indian Association for the Advancement of Veterinary Research, Bareilly (U.P.)	Dr T N. Jaiswal, Head, Division of Standards, Indian Veterinary Research Institute, Luzhnagar-243 122
May 8-12, 1994	1994 Pacific Conference on Distance Education	To share a Pacific perspective of distance education for present and future needs	The New Zealand Correspondence School	Mr. Lorraine Polis, The New Zealand Correspondence School, Private Bag, Wellington, New Zealand
June 1-3, 1994	Seventh Annual Conference of the All India Association for Educational Research	Theme : Innovations in Education	Foundations of Education, Jamia Millia Islamia	Dr (Mrs) G.M. Miyan, Reader, Department of Foundations of Education Jamia Millia Islamia, New Delhi-110025

PRACTICE TEACHING

A Farce or Reality

A.P. Sharma*

Introduction

Practical work is considered as the core programme of every professional training. The better the programme is, the better will be its results. All professional training including medical, commerce, engineering, technology and others, organise their own internship programmes related to their syllabi and objectives and try to develop the skills and professional competence in their students, which are required of them when they actually indulge in their professions. Bachelor of Education (B.Ed.) courses, like any other professional course, also involves Practical Programme, which is usually known as 'Practice Teaching.'

As other professional trainings involve certain objectives, educational programmes also contain certain objectives which may help the students to develop professional efficiency. Some of the common objectives as laid down in the syllabi of most of the universities are to :

1. develop ability and self confidence in pupil teachers,
2. develop a high sense of professional responsibility,
3. develop resourcefulness so as to make the best use of the situation available,
4. arouse the curiosity and interest of the pupils and secure their active participation in the educative process,
5. develop pupils' capacity for thinking and working independently and guide pupils to that end,
6. Organise and manage the class for teaching learning,
7. use appropriate teaching methods and techniques,
8. convey ideas in clear and concise language and in a logical manner for effective learning,
9. prepare and use assignments,
10. plan and organise co-curricular activities and participate in them,
11. give proper opportunities to the gifted pupils and take adequate care of the backward pupils, and

12. evaluate pupils' progress by using different techniques.

Keeping in view the above objectives, their nature and concern for the participants, their importance is clear. If only three fourths of the objectives are achieved at the end of B.Ed. training, the purpose of the training is almost fulfilled. Most of the countries in the world organise their professional programmes in different fields in such a manner that the objectives laid down by the professional institutions are ultimately achieved and the trainees develop in them the desired efficiency useful for them as well as the country. A number of examples can be quoted from the developed and even under-developed countries in this respect. For example, in England, America and in countries like Nigeria, which do not have much political stability, practical training programmes in the field of education, medical or engineering, are of excellent nature which through their rigorous practical activities cultivate in their trainees the required skills as reflected in the objectives meant for that programme.

Microteaching

It is a teaching practice programme organised before the actual practice teaching starts in a teacher's training college. Its main objectives are to develop those important teaching skills, such as the art of questioning, introduction of a lesson, the use of the black board etc., which are instrumental in exploiting the teaching qualities which lead to professionalism in teaching. Most of the teaching institutions need to devote nearly eight to ten days to develop the five or six skills most coveted in teaching. Microteaching also involves some psychological points which overtly may not be known to the trainees. In fact every beginner has some kind of inertia which is enforced by shyness and complexes implicit in the person. When one practises teaching under the microteaching programme with his/her peer group, gradually the shyness dissolves and courage takes place instead. Therefore, microteaching is one of the best teaching programmes in B.Ed. colleges, organised in advance of actual teaching practice exercise as it helps not only developing certain useful skills but also develops certain useful traits in the personality of the trainees, without which, their teaching will be affected adversely. Therefore, microteaching is a part of the teaching practice programme.

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The Present Scenario

The present situation is certainly dismal as regards practice teaching in teachers training colleges. No one seems to have much interest in it except that it is organised as a routine programme devoid of attainment of most of the objectives listed above. Mostly an attitude of 'who cares' is rampant among the teacher-supervisors who are less concerned to develop any skills in the trainees as their main interest is to fulfil the minimum requirement laid down in the university syllabus. Most of the teachers' colleges are wont to complete the minimum required lessons and there too short cuts are invented to complete that number. (Most of the universities in Rajasthan and in other states require 40 lessons to be completed by the students). The principals of the institutions hardly visit the practising schools as perhaps it is below their dignity to do so. Besides they hardly have time to do anything with this important activity as in their opinion it will be taken care of by the in-charge of that activity. As soon as the required number of lessons are completed and a criticism lessons' done, hardly any serious discussions are held to highlight the students' areas of strength and weakness. Some passing remarks to avoid students' displeasure, are thrown casually at the time of discussions after the criticism lessons, and that's all.

In fact the supervisor's example is followed by the students too. They try to throw off the burden by completing the prescribed number of lessons without much toil or teaching aids. The plans are drawn without much imagination and lessons delivered in a hurry to catch a train or bus as the trainee lives out of station. Above all the controller of the examination sitting on a high platform in the university is totally inadequately informed about the usefulness of such programmes. Therefore, he has no expectation what so ever from the teachers' training colleges as regards practice teaching programmes.

Although there are a number of causes for ineffectiveness of the practice teaching programmes, some of the conspicuous ones are :

1. To a large extent the college administration is responsible for its being less effective. Any kind of programme must be planned in advance and later on executed effectively. With that a follow up is also required. All this is mostly missing. The teachers' colleges arrange their practice teaching most hurriedly just to complete the syllabus. Neither the students are given right kind of classes to teach nor their difficulties relating to practising schools are looked into. Microteaching programmes are either missing or poorly organised in the colleges. As a

result the students fulfil their work most reluctantly.

2. The supervisors' lack of seriousness is another factor. They often reach late or just in time to supervise the students. As a result the students hardly get any time from them to discuss their academic or other problems. Besides, the notes they often put in their diaries are of general nature. Since they are used to sit for a couple of minutes in the class with the heavy thought that they are experts in the field and can judge the students in seconds, it leads nowhere. No lessons can be identical and at all occasions students need to be closely supervised, advised and evaluated. Without that no teacher can help his students to improve his teaching. Not only that, the teachers develop either apathy or liking for particular students. It creates problems not only in grading and evaluating them but lead to indiscipline and lack of respect for them in the students' minds.

3. Students also contribute to the malaise in no small a measure. Their attitude to finish the work in a hurry does not allow them to consider its importance. It has far reaching effects. The skills not learnt at this stage remain unlearnt and in the long run they develop a style of their own which is marked by arrogance, carelessness and lack of knowledge. How can they impart or develop any ethical or academic values in others when they themselves lack them? Lethargy is a contagious disease which is soon imitated by others as most of the human beings who develop this attitude and that of "Who cares?" are those who are always in quest of a cheap pleasure and less work.

4. The Headmaster and the subject teachers of the practising schools, are also responsible for the degradation of the teaching practice exercise. Most of the Heads of schools think that the practicing teachers consume or waste time of the subject teachers. As a result the courses would not be completed. Besides, they are reluctant to give them senior classes to teach with the fear that they would not impart much as they believe they lack sufficient knowledge. In fact the truth is that many a practicing teachers not only know more than the regular teachers but also employ most recent methods which are most effective in teaching.

Besides, there are the growing trends in respect of work and responsibility. The practicing student-teachers are gradually developing habits of not carrying visual aids with them and not improving the black board work, which are very important for making practice teaching effective. On the part of the teachers or supervisors a growing trend of writing "lesson taught" has gained much popularity

than actually sitting for full time in the class and properly observing the students. The growing trend is that most supervisors sit for less than 5 minutes in a class to supervise a practicing student. If the above reasons are removed, the exercise of practice teaching will surely improve to a great extent and lead to so many good results including developing moral values and academic involvement in any educational institution.

The Imperative

Therefore, in order to improve the quality of practice teaching all should put their shoulders to work. The principals of the teachers' colleges must realise their responsibilities towards it and exert influence to organise it very effectively. The lecturers or supervisors need to visit the practicing teachers regularly sit in the class for good time and comment in their diaries very realistically. Their comments and awarded grades must be in coherence. Adequate discussion after the class must be held by them to identify students' strengths and weaknesses in teaching, which will help them to evaluate their own work. A follow up programme is also need to be arranged from time to time so that both the students and the supervisors get to know the standard and quality of their work. Above all, the supervising staff must develop and possess a positive attitude towards the practicing students, which will win them psychologically and provide impetus to them. Selection of right kind of schools for practice is equally important. Quite often the practicing schools are located in terribly filthy areas. They are inadequate space-wise and from the point of view of approach as well. If some of the above measures are adopted it is certain that the most important exercise of B.Ed. training will improve in quality and standard which will have far reaching effects on the educative process in our country.

The political and social environment of our country is rather not conducive to cultivation of values and knowledge. When a student grows in a homogeneous environment he/she learns values and knowledge through that environment. But it is disheartening that the teachers who are the main source of cultivation of values, do not teach adequately. 'They are not the teachers who used to be. Good teaching crosses the rational intellectual dimension by shaping interpersonal relations between a teacher and students. It develops mutual respect and intellectual integrity. A teacher teaches humanness by being humane, truthfulness by being truthful, honesty by being honest, devotion by being devoted, generosity by being generous and social good by rendering social good.' (Anand P. Srivastava)

Swami Vivekanand said that through right kind of education the hidden qualities should be manifested. Gandhiji believed in spiritual aims of education and upheld that right training would develop citizenship qualities as well as build character. Krishnamurti believes that love should be cultivated as it will develop and generate love. Therefore practising period in educational institution is of paramount value. It is only through the right training that the practising teachers will cultivate not only the qualities of character and good teaching but develop into human beings who are greatly needed today.

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R.N. Singh
DIRECTOR

The Rainbow Nation

Sir Anerood Jugnauth, Prime Minister of the Republic of Mauritius, delivered the Convocation Address at the twelfth convocation of Sri Sathya Sai Institute of Higher Learning, Prasanthi Nilayam. He said, "Just like the rainbow assembles different colours, in perfect celestial beauty, in Mauritius different religions and cultures live side by side, with devotion of the same intensity for the motherland. It is my fervent prayer that my country preserves its uniqueness as the rainbow nation, as the land of peace and brotherhood." Excerpts

The daily happenings around us show that our world is increasingly becoming a place where hatred and rivalry have predominance, where selfishness and materialism lead to human violence, where perverse social behaviour and immorality are intensifying, where children are being abused and where elders are neither respected nor cared for and where solidarity, brotherhood and humanitarianism are becoming distant dreams.

The time has come for mankind to awaken from its slumber in order to reform its attitudes and to change its priorities. There would be no light at the end of the tunnel unless we reconsider our mode of living, unless we become disciplined, self reliant and useful to others. But in order to follow the right path, the world needs guidance and support.

We, who are living in the present century have the good fortune to be blessed by the presence of Bhagavan Sri Sathya Sai Baba, whose divine wisdom answers to our questions and doubts, reminds us of the teachings of the ancient sages and deities, strengthens our faith in divinity, helps us to find God in all creations.

In the same way as the morning rays of the sun dissipate the darkness of the night, the divine teachings of Baba symbolise the

light of hope and enlightenment in a bleak and vivid background of a world which is being obscured by gloomy clouds. In the holy presence of Bhagavan Sri Sathya Sai Baba, Prasanthi Nilayam is like an oasis in the desert, offering soothing freshness, calm and serenity to devotees coming from all parts of the world.

A journey to Prashanti Nilayam — the Abode of Peace — is a voyage of discovery, a pilgrimage towards the world of spirituality, and an urge to learn from the words and the actions of Bhagavan Baba and the example he sets to humanity.

Everything here, from the University to the Hospital and the Spiritual Museum is an expression of spirituality, imbued with divine inspiration. The spiritual museum is a vivid illustration of the concept of unity in divinity — it reflects the commonness in all religions and the universality of human values.

It is indeed rare to find institutions of higher learning like the Sri Sathya Sai Institute of Higher Learning where students have free education, where voluntary service prevails, and where the acquisition of knowledge and wisdom is combined with duty and devotion.

What is unique at this Institute is that it is founded by

Bhagwan Baba; it is inspired by His teachings and is guided by His concept of a wholesome education, based on the fundamental values of Truth, Righteousness, Peace, Selfless Love and Non Violence. To quote the holy words of Baba :

"If there is beauty in character, there will be harmony in the home, when there is harmony in the home, there will be order in the nation; when there is order in the nation, there will be peace in the world. So be righteous; avoid all prejudices against others on the basis of caste, creed, colour, mode of worship, status or degree of affluence. Do not look down upon anyone; look upon all as Divine as you really are".

This powerful message of love and peace is not confined to any religion or the rigidity of any ideology or dogma. It appeals to humanity and is the language of divinity itself. What is equally important is that the Sri Sathya Sai Institute of Higher Learning is the concrete and tangible expression of what and how our world should be. The aura of peace and spirituality, of service and humanism that emanates from this place is the hopeful sign of a changing world.

The strong emphasis placed on morality, integrity, sacrifice, reverence, respect aims at creating "nobler and high minded men and women", if I may borrow the words of Baba. Students have to imbibe the spirit of selfless service, friendliness, discipline and observe a Code of Honour. No one can remain insensitive to the new concept of integral education which is propounded here and which focuses on the building of the character of a new generation. Education does not mean earning degrees and lucrative jobs — Baba reminds us that Education leads

us from falsehood to truth, from darkness to light, from death to immortality.

It is a sign of hope for the whole world that the teachings of Bhagavan Sathya Sai Baba have reached the hearts of many citizens of this world and that his mission does not and will not remain unachieved.

Bhagavan, Mauritius is a small country, with a multicultural population which has been living in peaceful co-existence and harmony. Thanks to the Divine grace, we have experienced economic and social advancement. Thanks to the Divine blessing, we have been inspired by the policy of Unity in Diversity, which calls for understanding and mutual respect and has allowed us to resist any attempt to shake the foundations of the much prized unity and stability of our people. Just like the rainbow assembles different colours, in perfect celestial beauty, in Mauritius different religions and cultures live side by side, with devotion of the same intensity for the motherland. It is my fervent prayer that my country preserves its uniqueness as the rainbow nation, as the land of peace and brotherhood.

The people of Mauritius cherish the ideals of peace and are eager to consolidate the co-existence of the diverse religions and cultures. They keenly desire the spiritual upliftment of their lives and the betterment of their social environment.

Bhagavan Baba, conscious of this necessity to raise the quality of lives of our people, we have, along the lines of your own vision of education, initiated the teaching of human values in our schools. This teaching is based on the uni-

versal values propounded by all religions and comes close to the concept of Unity in Divinity of which you have been a promoter. We shall continue with our programme of human values with the help and collaboration of all religious groups living in Mauritius so that we may promote human

excellence. I recall your own view of *Vidya Vahini* which states

"Material knowledge provides the wherewithal for human livelihood whereas spiritual knowledge endows human beings with the strength to enable them to discharge successfully the duties they owe to themselves."

ESSENCE OF EDUCATION

Benedictory Address

by

**Bhagwan Sri Sathya Sai Baba, Chancellor
Sri Sathya Sai Institute of Higher Learning
Prasanthi Nilayam**

Education lends charm and beauty to a student. It earns for him fame, prosperity and wealth. Education indeed is the secret treasure of a student. It verily is his third eye. A person devoid of this education is an animal.

Today neither students nor teachers understand the true meaning of education. Education should foster morality, righteousness and character. The tremendous amount of knowledge that man has acquired in the field of science and technology contributes only to the superficial civilisation. What man requires today is not superficiality but internal beauty of the heart. This internal beauty of the heart springs from inner culture. It is not enough if man is transformed into a mere human, he has to be transformed into an ideal man.

Education should laden the heart of man with compassion. Then alone education acquires fullness. Education is not for a living, it is for life.

The students of today, turn a blind eye to the very basis of life. This leads to the loss of self-confidence in man. The loss of self-

confidence is the cause for many agitations and upheavals that man witnesses today.

Education is the very life-breath of man. While making a frantic scramble for a living, man today fails to realise the very meaning of life. Character is the very life of man. A man without character is devoid of all purity. The Indian culture has always emphasised the need for cultivating and fostering character but the students of today pay no heed to the excellence of Indian culture and allow themselves to be swayed away by the superficial secular learning.

Education today has become mechanical. It caters to the mere intellectual development without catering to the blossoming of the human heart. It is true that the economic condition of India is not sound but in no way does it endanger international peace and amity. But the danger wrought by man's disregard to moral values is still greater. Such a state of moral devaluation decelerates the very progress of man.

Two hundred years ago, scientists started exploring the mys-

teries of nature and arrogated to themselves that they harnessed all the powers of nature. These scientists invented atomic weapons which unleashed untold suffering on mankind. The scientists should explore ways and means which contribute to the betterment of the world and should never work for its detriment. Science and Technology contributes to the temporary pleasures of man but in the process damages the very faith of man. We must today seek a system of education which promotes the well-being of mankind and puts the youth of today on to the proper path. The day when man seeks the true system of education, then alone will there be peace and prosperity. We have to cultivate a mind unsullied by hatred and attachment, speech untainted by falsehood and a body not befouled by violence. But unfortunately man taints his mind, speech and body by his bad conduct. We must seek a system of education which ensures the purity of mind, tongue and body and impart it to the students.

Even a hard-hearted and hard headed person like Churchill sternly criticised the misdeeds of science. The modern scientist strives to explore and understand everything in the world without understanding himself. Man has conquered all but not himself. Of what use is all his knowledge about everything without acquiring the knowledge of himself. The scientists are more interested in earning name and fame than contributing to the betterment of a nation.

It is very easy to harm mankind but very difficult to help it. Science will fulfil itself when it contributes to the welfare and well-being of humanity. Scientists will fulfil themselves the moment they start working for the welfare of

mankind.

Today every word that man speaks is polluted by falsehood; and every step that he takes is tainted by unrighteousness. His every desire is stamped with selfishness, his every thought is soiled by selfishness, casteism is on the increase and parochialism is exceeding all limits.

Anger and hatred rise high in the mind of man. In fact, mankind itself has fallen very low. How can man be called human if he fails to cultivate harmony of thought, word and deed?

We do not see today, ideal leaders, parents and teachers anywhere. In ancient India, teachers set great ideals for students. Since the elders set bad ideals, now, the youngsters are getting spoilt. It is imperative on the part of leaders, parents and teachers to understand the true meaning of education. The parents want their children to go abroad and earn lakhs and lakhs of rupees. They delude themselves into thinking that money confers happiness. Money is not the true source of happiness; the true source of happiness is virtue. It is only the virtuous one who makes a good leader.

Leaders should engage themselves in social service. How can one become a master without becoming servant first? In fact, the happiness and joy of an individual is derived from society. Hence we should regard the happiness of society as our own happiness. It is man's duty to strive for the happiness of society before seeking his own happiness. It is responsibility fastened on elders to impart these teachings to students and teachers. However high may be your learning and however, great may be your rank, you should cultivate virtues. The

modern man today formulates profound philosophical doctrines, and conducts manifold investigations in the realm of matter, but does he retain his human quality?

The supreme quality that man should cultivate is love. It is love which makes you speak truth; it is love which enables you to experience peace; it is love which makes you observe non-violence. In all these, it is love which runs as an undercurrent.

Authorities concerned with education should try to bring in proper changes in the educational system of the country today. Unfortunately, it is only the rules which change from time to time with the change of ministers. The committees which the government appoints to bring in due changes in the educational system usually turn into come-for-tea committees. The committees come, prepare reports and heaven knows where these reports go!

The modern educational system makes man hard-hearted and destroys the qualities of compassion and love in man. Once when Gandhiji was sitting gloomily, a foreigner came to him and said, "Gandhiji, may I know what is the cause for your gloom?" Gandhiji replied, "The education imparted today turns man into a hard-hearted person instead of instilling the qualities of love and compassion." The educated young men of today are totally devoid of sweetness and compassion and they turn ungrateful. In fact unlettered illiterate people behave much better than the educated young men of today. The first and foremost quality of a student is humility and lack of pride and selfishness. These three constitute the three beautiful ornaments of man and a student without these virtues will never prosper.

The parents of today support

and encourage their children in their misdeeds. In fact these parents are the brothers of Dritharashtra. Dritharashtra supported his son in all his misdeeds without correcting him even once. The parents of today will not even listen the words of Harischandra but they will faithfully place full trust in the words of their children. When parents themselves fail to set right their children, who can set right these misguided children? It is parents who actually spoil their children and they will harvest the fruit of their misdeeds.

Students today should not scramble for degrees, on the other hand, they should strive to transform themselves into ideal students. They should not be heroes in words and zeroes in deeds. The students of today are given to a life of lassitude: eating, sleeping and loafing. Students, in the first instance, should serve their parents for all the pains they have undergone to educate them. How can anyone serve the cause of the nation without first serving his own parents?

Man's life is sustained by the five life breaths (*Pancha pranas*) of *prana*, *apana*, *vyana*, *udana* and *samana*. Similarly, *sathya*, *dharma*, *shanti*, *prema* and *ahimsa* should constitute the lifebreaths of students. All these five values should be harmoniously cultivated and man's excellence will be incomplete in the absence of even one of the values. Man should cultivate the virtues of sympathy, patience and unity. Love should run as the undercurrent of these three qualities. A life without love is living death.

The welfare and well being of the world today hinges on the education we impart. Education which is the very life breath of an individual is very sadly neglected. Education acquires true meaning

and significance if it is imbued with the five human values.

"Devoid of sathya, dharma, shanti and prema

All education is a zero.

Without sathya, dharma, shanti, prema,

The value of charity is a zero.

Sans sathya, dharma, shanti, prema,

The value of all jobs is a zero.

Bereft of sathya, dharma, shanti, prema,

The value of all meritorious deeds is zero.

For the mansion of eternal India these four values are indeed the four walls.

What more can I tell you

Oh, Students! endowed with noble virtues."

We will be betraying the very cause of education if we do not cultivate the four human values. The people of today do not know the value of sacrifice (*thyaga*). It is only sacrifice which confers immortality. This *thyaga*, in course of time, becomes *yoga*.

There is a frantic scramble on the part of students to go abroad. It is the bounden duty of every student to serve his motherland first. You should serve your country till your conscience is satisfied.

Human life is precious and worthy to be lived. It is sacred and sweet and ought to be lived but unfortunately humans do not live as humans but behave worse than beasts. Being born as humans, we should not allow ourselves to be swayed away by jealousy and selfishness. The moment you sacrifice *swardha* (selfishness), we gain *parartha* (immortality). The humans who live at the material level are not worthy to be called humans at all. Such people are humans only in form but not in reality. Each one of our students

should shine as an effulgent lamp of idealism. Let the light of these lamps illumine the entire world. Cultivation of virtue is more important than mere acquisition of knowledge. No substantial good is gained if syllabi is frequently revised. Superficial changes yield only temporary benefits. Changes in the realms of politics, and economic yield no dividends if there is no change in the mind of man. It is mind which makes a man and the man without mind is no man at all. The transformation of mind brings in the transformation of mankind.

The real role of science lies in fostering unity. It is unity which brings in purity and both these in their turn will usher in Divinity. But there is in the world today neither unity nor purity nor divinity, but only 'community'. These communal feelings are the cause of the conflict and the chaos in the world today. Mankind would realise that all are children of one God. There is only one religion, the religion of love; there is only one language, the language of the heart; there is only one caste, the caste of humanity.

Students! the future of your nation rests on your shoulders. If you are good, your nation will be good. A nation will prosper if its students follow the proper path. We must destroy the barriers of narrow mindedness. The entire world is a mansion and the different countries of the world are the rooms in this mansion of the world. The ideal of "*Loka Samastha Sukino Bhavantu*" should be practised. We must shed narrow mindedness and cultivate broad mindedness.

Man should live a life of love. His relationship with the others should be marked by love. Sri Sathya Sai Institute of Higher Learning has been established to

foster the supreme ideal of love. This institute is not one more addition to the universities in India today. People may mock and laugh but we should be firmly planted in our faith. Gopika nourished incomparable love for Krishna. Their hearts were steeped in love for Krishna, without any selfishness. Uddhava came to them and said, "Give up your love for Krishna, for this love has earned the displeasure of your mothers-in-law, sisters-in-law and husbands." To this the Gopikas replied, "Oh Uddhava! we are prepared to punish ourselves if we are at fault. Why should we punish ourselves when we are engaged in the contemplation of the Lord? Why should the cuckoo stop singing when the crows caw? Does the elephant cringe when dogs bark at it? We should pin our faith on

truth, for truth is our life-breath." The Indian culture emphasised the ideals of "Sathyam vada, Dharma chara." These two are like the two wheels of a chariot and the two wings of a bird. *Sathya* and *Dharma* are inter-connected and interrelated. These two are like the positive and the negative. The unity of these two ensures the oneness of humanity. We should not allow ourselves to be swayed away by fear. Why fear when you follow *Sathya*? All of you know the life of Harishchandra who sold away his wife and sacrificed his son and served as a keeper at the graveyard for the sake of Truth. That is why he earned the name of 'Sathya Harishchandra'. Never give up truth; never forsake *dharma*; foster love; support non violence.

the then Vice-President of India and now the President of India, said on the occasion of VIth Convocation in 1987,

"The three Campuses of the Institute provide an atmosphere of Peace, Spirituality and Intellectual endeavour. The University is a source of profound and far reaching benefit to the Nation and the World at large. The key-position given to our Indian Tradition in the education imparted here is of great importance..."

Addressing the 27th General Conference of UNESCO in October 1993 at UNESCO Head Quarters in Paris, Hon. Armoogum Parasuramen, Minister of Education and Science, of the Republic of Mauritius said :

"It is encouraging that different countries have already started educational programmes for the teaching of values. One remarkable example is an organisation in India, which under the enlightened guidance of His Holiness Shri Sathya Sai Baba has established educational Institutions and a curriculum, which transcend religions and all man made frontiers. The organisation which is run by volunteers, has been well acclaimed in different countries, as it propounds the message of love and brotherhood, of tolerance and compassion and of respect and understanding. It defines the fundamental objective of Education as "Blossoming of Human Excellence" and "Integrated development of the human personality".

In a nutshell, Sri Sathya System of Education has a goal that transcends the concept of building up a fabric of "Knowledge" and "Skills". Its grand aim is to produce a "Combination of Action in the Material World" with "Deep Yearning for Spiritual Enquiry" by creating a base to facilitate the transformation of "Secular Values" to "Absolute

**Excerpts from the Address
by
Dr. K. Hanumanthappa
Vice-Chancellor
Sri Sathya Sai Institute of Higher Learning
Prasanthi Nilayam**

Sri Sathya Sai Philosophy of Education has a profound positive content based on Spiritual Heritage, National goals, Universal Perceptions and Cultural Perspective. Baba's Philosophy of Education derives from His general philosophy of life as a whole. Its watchwords are "Sathya, Dharma, Shanti and Prema". These four pillars of Baba's Philosophy yield the four ideals of Higher Education : Knowledge, Skill, Balance and Insight or Vision. Sai System of Education creates in students a sense of purity of thought, word and deed, and above all it makes them better human-beings.

Sai Philosophy of Education promotes Truth, Righteousness,

Peace, Love and Non violence in the Individual, Family, the Society, the Nation and World.

While delivering the first Convocation Address of this Institute, Shri Nani A. Palkhivala, Legal Luminary of our Country, said :

"This Deemed University is a remarkable experiment in the Moral and Spiritual regeneration of India. The standard of discipline and character-building maintained here are equalled by few and surpassed by none in contemporary educational systems. The Vision is that of Education by which Right Conduct, Fear of God and Love are developed among the citizens".

Dr. Shankar Dayal Sharma,

Values". The learner would then be enabled to play, when the time comes, a meaningful role in Society as a person in whom there is a symbiosis of worldly concerns and Spiritual Ideals. In essence, Sai System of Education stands for "Human Excellence", the Excellence in every aspect of human-living which can be called "Overall Excellence". So, for the development of "Total Integrated Personality" of an individual, here is a system which is unique in itself incomparable and unparallel. Therefore, many countries in the World have come forward to adopt Sri Sathya Sai System of Value-based Education.

Sri Sathya Sai Institute of Higher Learning (Deemed University) founded by Bhagavan Sri Sathya Sai Baba, was inaugurated on November 22, 1981. The Institute is a non-profit autonomous Institution having three separate residential Campuses. Its two Campuses for men are at Prasanthi Nilayam (Andhra Pradesh) and at Whitefield (near Bangalore). The third Campus, for women, is located at Anantapur (Andhra Pradesh).

The Institute subscribes wholly to the concept and practice of "National Integration" and has adopted an open admission policy, based on merit, encouraging the enrolment of boys and girls irrespective of parental income, class, creed, religion or nationality. Education is free from K.G. to P.G. Courses to all students.

The Institute has dedicated itself to the imparting of a form and style of education, described as 'Integral' which encompasses the pursuit of Knowledge paving the way to the imbibing of wisdom, inculcation of the traits of duty and devotion and the virtue of simple living; illumination of the mind through meditation, development of health through

Games and Yoga practice, participation in Social Service and Field Work in selected areas and cultivation of a sense of Unity with all fellow-beings irrespective of individual's religious faith.

In addition to formal instruction, the students get, through a course spread over two years and designed as "Awareness", an exposure to Indian Culture and Spirituality as well as Thoughts that underpin the Unity of all Faiths, the Cultural Heritage of Mankind, Inspirational literature of the World, the work of eminent men and women in the World of Science and the Imperative of the Synthesis of Science with Spirituality.

During 1993-94, 390 students (213 boys & 177 girls) were admitted to various Courses of study. The total enrolment of students, which was 1066 in the previous year is now 1104. At this Convocation 109 P.G. students (77 boys and 32 girls); 220 undergraduate students (128 boys and 92 girls) will receive their degrees. So far 43 students have been conferred Ph.D. Degrees in various Faculties by the Institute.

The Academic Session for 1993-94 began with the conduct of Summer Course of "Indian Culture and Spirituality".

The Institute held its Annual Cultural and Sports Meet in January 1993 with all students of the Campuses participating effectively and vigorously in various programmes during which they displayed rare skills both artistic and athletic.

Steps were taken to strengthen the Honours Programme in various Science Courses. The Institute also introduced an Honours Programme in the Faculty of Commerce this year.

We have undergraduate, postgraduate and Ph.D. Courses

in Arts, Science and Commerce & Management Faculties. This year we have started some new Courses like M.F.M. Course (Master of Financial Management), M.Tech. (Computer Science) and M.Tech. (Applied Optics and Digital Image Processing). The Institute has initiated steps to start M.A. in Mathematical Economics and Econometrics and few other professional courses like — M.C.A., M.Tech. in Electronics, Computer Software Application; Information Systems; Optics and Optical Communication; Instrumentation System based Micro-processor Technique; Genetics, Pharmaceutical Chemistry, Biotechnology etc.

Research work in the Science Departments has been continued with the same zeal as had marked the efforts earlier.

The University had forwarded proposals to the Department of Education in the Ministry of Human Resource Development for central assistance in certain Thrust Areas. Four projects — one each from the Departments of Mathematics & Computer Science, Physics, Chemistry and Biosciences have been forwarded. The proposal from the Department of Mathematics and Computer Science is for establishment of an Artificial Intelligence Centre for Research and Training. The proposal of the Department of Physics is for study of Non-linear optical effects in Fibres and their role in Fibre Optic Communication. The Project from the Department of Chemistry is to study theoretical and experimental approaches to the development of effective anti-cancer drugs. The Project submitted by the Department of Biosciences concerns the studies on Ecophysiology and Biotechnology of VAM Fungi of semi-arid tropical soils of Anantapur District, Andhra Pradesh.

Breakthrough in Technology Transfer

The Council of Scientific and Industrial Research (CSIR) has transferred "know-how" for the manufacture of a polyurethane based two-component water proofing system to Dr. Beck and Co. The technology was developed by the National Chemical Laboratory (NCL) based in Pune and successfully tested for over four years by the Central Building Research Institute (CBRI), Roorkee. A joint venture between Dr. Beck and Co. and the two CSIR institutes was established in March, 1993.

Releasing the product in New Delhi recently Dr. S.K. Joshi, Director-General, CSIR, said the composite strength for R and D resided in the 40 laboratories of the CSIR and the industry should cash in on developments in modern technology.

Dr. Joshi said the polyurethane product was user-friendly and economically viable. He hoped the recent advances in polymer technology developed by the NCL would be absorbed by more industries in the days to come.

The Beck and Co. successfully field tested the system and is now ready to launch the product which is based on polyurethane. The versatile product based on advanced polymer technology will meet the water proofing challenge, he added.

Dr. Joshi said the trinity of "Industry, Government involvement and field-based research" would collaborate in a big way and fruitful results beneficial to

the country would emerge out of such a interaction.

Beck Bond PU would be an ideal solution for water proofing of terraces, walls, balconies, bathrooms, swimming pools and even non-potable water tanks. It is simple, cost-effective and superior in performance over other conventional systems.

Common MBA Entrance Exam

An All-India Management Aptitude Test (MAT) for admission to various MBA programmes in the country, is to be conducted for the first time in India in January 1994.

The scores of the test, designed by AIMA's Centre for Management Education, will be at present accepted by 18 management institutes such as in the Pune and Lucknow universities and by MMTC.

At present, there are about 120 institutions and universities offering postgraduate programmes in business management, entry to which is essentially an aptitude test. Also, there are private and public sector organisations that screen candidates for entry-level positions. A need was felt in management circles to consolidate the resources of these two segments and evolve a standard evaluation mechanism (akin to the GMAT in the USA) for candidates seeking entry to business schools and the management profession.

This universally-accepted aptitude test is expected not only

to ensure the right kind of quality of candidates but also to optimise the total time and expenditure involved in the evaluation process. Above all, it helps bring in some kind of uniformity in the selection criteria of various institutes.

The scores, which are proposed to be declared as percentile levels with institutions free to administer their own cut-off points, would be valid for one year. The results will be sent to the institutes chosen by the candidates.

Stress on Women's Education

Dr. Shankar Dayal Sharma, President of India, underlined the need for educating more women as that would go a long way in education and development of all members of a family. He was speaking to a delegation of the Aligarh Muslim University (AMU), which called on him in New Delhi recently to present the first copy of a book entitled "Educational Needs of Indian Muslims", brought out by the University. The delegation was led by Prof M.N. Faruqui, Vice-Chancellor of the AMU.

Edited by Dr Ishrat Ali Qureshi, the book is a compilation of papers read at a seminar organised in August this year, by the Aligarh Muslim University in coordination with the All India Muslim Educational Conference, the Duty Society and the Female Education Association.

Prof Faruqui told the President that the seminar recommended a number of specific

measures, which may be taken by the Government, voluntary Muslim organisations and others. It also laid great stress on opening new scientific, technical and vocational institutions to raise the educational level of Muslims.

Bhatnagar Awards Presented

The Minister of State for Science and Technology, Mr Bhuvnesh Chaturvedi, presented the prestigious Shanti Swarup Bhatnagar Awards for Science at a function held in New Delhi recently. Speaking on the occasion he assured scientists of adequate funds to all basic research aimed at development and said programmes followed by national agencies to help the Indian industry become globally competitive would receive government's support.

The Minister urged scientists to direct their efforts in ensuring a better quality of life to the large section of the population that lives below the poverty line, and accord priority to programmes aimed at providing better health and well-designed affordable houses to the poor.

The Bhatnagar awardees include Dr R. Gadagkar and Dr N. Murthy from the Indian Institute of Science, Bangalore, for biology, Dr S.R. Gadre from the Pune University and Dr T. Ramasami from the Central Leather Research Institute, Madras, for chemical sciences.

Dr U.C. Mohanty from the Department of Science and Technology, New Delhi, gets the prize in earth, atmosphere, ocean and planetary sciences; Dr Dipankar Banerjee from the Defence Metallurgical Research Laboratory,

Hyderabad, and Dr S.K. Bhatia from the Indian Institute of Technology, Bombay, for engineering sciences.

In Mathematics, the award went to Dr Karmeshu from the Jawaharlal Nehru University, New Delhi, and Dr N.M. Singh from Tata Institute of Fundamental Research, Bombay while in medicine it was bagged by Dr G.P. Pal from M.P. Shah Medical College, Jamnagar.

The Bhatnagar Award for physics went to Dr Gopal Krishna from the National Centre for Radio Astrophysics, Pune, and Dr R. Simon from the Institute of Mathematical Sciences, Madras.

Each Bhatnagar Award carries Rs 50,000, a citation and a plaque.

The CSIR shield for process technology was awarded to the Indian Institute of Petroleum, Dehra Dun, while the CSIR prize for biological sciences and technology went to Regional Research Laboratory, Jammu, and for chemical technology to Indian Institute of Chemical Technology, Hyderabad.

Sustainable Development Strategy for India

The Jawaharlal Nehru College, Pasighat, Arunachal Pradesh, proposes to organise a National Seminar on Sustainable Development Strategy for India on 3-5 March 1994. The Seminar will provide a forum for the exchange of related ideas and sharing the knowledge and experience gained by the professionals in the field. The seminar will try to take stock of India's present developmental situation vis-a-vis the world and in that light will attempt to sug-

gest a sustainable developmental strategy for India.

The Seminar will focus on (1) Theoretical and Conceptual Issues, (2) Strategical Framework, (3) Contemporary Direction, (4) Policy formulation, Implementation and People's Participation, and (5) Sustainable development in north-east regions with special reference to Arunachal Pradesh.

For further details, all communications may be addressed to the Convener, National Seminar on Sustainable Development Strategy for India, Jawaharlal Nehru College, P.O. Hilltop - 791103, Pasighat, Arunachal Pradesh.

Satyanand Stokes Library

Satyanand Stokes Library at Dr. Y.S. Parmar University of Horticulture and Forestry, Nauni-Solan offers information search facilities to all the scientists from all over the country on broad range of agriculture related subjects from its own Inhouse databases and from world's leading agriculture research databases. AGRICOLA (Databases of National Agriculture Library, U.S.A. (1984-90) and CAB-CD (1984-92) are the databases on CD-ROM at presence available in the university.

This database covers about 55 CAB Abstracting Journals and over 10,000 journals plus monographs, conferences, theses, technical reports, other sources from over 100 countries.

For current information Current Contents on Diskettes with Abstracts are used which covers nearly more than 900 current journals. Its own Inhouse databases are on Horticulture and Forestry

including Social and Agroforestry. Database of theses submitted in Himachal Pradesh University, Himachal Pradesh Krishi Vishvavidyalaya and Dr. Y.S. Parmar University of Horticulture & Forestry submitted for the award of M.Sc. and Ph.D. on Agriculture/Horticulture, Forestry and related topics is also available.

Those interested in information search may write to : The Librarian, Dr. Y.S. Parmar University of Horticulture & Forestry, Satyanand Stokes Library, Nauni-Solan 173 230 H.P.

ICMR Awards 1992

The Indian Council of Medical Research (ICMR) has selected twenty-two scientists for its various awards for the year 1992 for outstanding contributions in various branches of biomedical sciences.

Dr M.S. Valiathan of the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram, and President, Association of India Universities has been selected for the Basanti Devi Amir Chand Prize for major contributions in medical research.

Dr. Umesh Kapil from the All-India Institute of Medical Sciences, New Delhi, gets the B.C. Srivastava Foundation Award for work related to community nutrition.

The Sandoz Oration Award for Cancer Research will be shared by Dr B.C. Das of the Institute for Cytology and Preventive Oncology, and Dr S.S. Yadav of the Maulana Azad Medical College, New Delhi.

Dr Sneh Anand of the Indian Institute of Technology, New Delhi, gets the Ksnika Award for Health Care Technology, and Dr

S.C. Mohapatra of the Institute of Medical Sciences, Varanasi, will get the M.K. Seshadri Prize.

Dr A.K. Mohapatra of the All India Institute of Medical Sciences gets the M.N. Sen Oration Award, and Dr V.P. Bharadwaj, of the CJIL, Agra, gets the Jamla Trust Fund Oration Award for leprosy research.

Dr D. Hanumantha Rao of the National Institute of Nutrition, Hyderabad, will get the ICMR Prize for Biomedical Research in underdeveloped areas. Dr S.G.A. Rao of the Cancer Research Institute, Bombay, gets the BGRC Silver Jubilee Oration Award.

Dr K.K. Talwar of the All India Institute of Medical Sciences, New Delhi and Dr S. Sandhyamani of the Sree Chitra Tirunal Institute will share the Amrut Mody Unichem Prize.

Dr V.V. Radha Krishnan and Mrs Annamma Mathai of the Sree Chitra Tirunal Institute will share the Chaturdevi Ghanshyam Das Jaigopal Memorial Award.

Four scientists, Dr Chandrima Shah of the National Institute of Immunology, Dr B.N. Mullick of the Jawaharlal Nehru University, New Delhi, Mr R.K. Jeevaratnam of the Defence Laboratory, Gwalior, and Dr Veena Parnaik of the Centre for Cellular and Molecular Biology, Hyderabad, will share the Shakuntala Amir Chand Prizes.

Dr S.K. Chaturvedi of the National Institute of Mental Health and Neurosciences in Bangalore will get the Tilak Venkoba Rao Award.

Dr D. Behara of the Post-Graduate Institute of Medicine, Chandigarh, will receive the Kamal

Satbir Award and Dr S.C. Parija of Jipmer, Pondicherry, will receive the Maj Gen Saheb Singh Sokhey Award.

Dr V. Kumaraswami of the TRC, Madras, gets the MOT Iyengar Memorial Award.

New Courses from IGNOU

The Indira Gandhi National Open University proposes to launch two new courses from July next year. These are an advanced diploma course in construction management and a course in water resources engineering. The minimum duration of these programmes would be three years and a maximum of five years.

Candidates who have successfully completed three years' diploma in civil/agricultural engineering from a recognised polytechnic or its equivalent and employed in related department/organisation or even self employed are eligible to apply for the programmes.

There is no minimum age bar for these programmes.

New Rules for Revaluation

The Bangalore University Syndicate is reported to have issued a new set of rules governing revaluation of answer scripts for undergraduate courses. Under the new rules, any student who has passed in fifty percent of the subjects he takes in an examination is eligible to apply for revaluation of answer scripts in the failed subjects. Under the earlier rules, a student was to have passed in two thirds of the number of subjects to be eligible for applying for revaluation.

Similarly, the 20 percent minimum marks to have been scored by a student to apply for revaluation in a subject has been reduced to 15 percent.

In another important decision, the university has decided that henceforth the results of revaluation shall be announced within 60 days of the application.

Instrumentation Centre at Bharathidasan Varsity

The University Grants Commission is reported to have agreed to the establishment of University Science Instrumentation Centre (USIC) Level I in the Bharathidasan University with a non-recurring grant of Rs. 6 lakhs and a recurring grant of Rs. 60,000 per annum. This was revealed by the Vice-Chancellor of Bharathidasan University who stated that the sanction was valid for two years.

Regional Policies and Development

The Department of Geography, Atarra Postgraduate College, Atarra (Banda), U.P. proposes to organise a National Seminar on Evaluation of Regional Policies and Development on January 16-20, 1994. The objectives of the seminar are to deliberate the basic issues of regional policies of development and allied aspects, to exchange experiences of scholars and experts from various disciplines, to suggest valuable guidelines for the future decentralised and sectoral planning and to provide an opportunity to the scholars, administrators and planners to think afresh on the core problems of regional development and re-orienting & re-structuring the policies and strategies thereof.

The topics proposed to be discussed include : (i) Development — the real meaning; (ii) Population change, control and employment; (iii) Modern Agro-techniques and rural development; (iv) Urbanisation and development; (v) Vicious circle of poverty — A rural and urban factor; (vi) Industrialisation, infrastructure and de-

velopment; (vii) Development and environmental conservation; (viii) Problems, strategies and planning for regional development; and (ix) Regional Policies: Re-assessment, re-orientation and re-structuring.

Further details may be had from Dr. K.K. Mishra, Brahm Nagar Colony, Attara (Banda) - 210201.

News from Agricultural Universities

Modern Agriculture and Environment

"A bane of modern agriculture has been the reliance on chemicals as fertilizers and pesticides. Extensive cropping, using chemical fertilizers, has depleted the land of nutrients and excess application of fertilizers has resulted in water pollution", said Professor K.B. Powar, Secretary General of the Association of Indian Universities, while inaugurating a 3-day Indo-German Conference on Impact of Modern Agriculture on Environment at Chaudhry Charan Singh Haryana Agricultural University (CCSHAU) recently. Professor Powar further observed "The use of pesticides, especially in the developing countries has become a health hazard. Each year about 2 million tons of pesticides are scattered over the environment in an attempt to control pests and diseases. This amounts to about 0.5 kg per person in the world. Certain pesticides that have restricted use in developed countries are freely used in the developing countries e.g. DDT. According to WHO there are about 3,75,000 cases of agro-chemical poisoning in the Third World countries. The use of biological methods of pest control and development of resistant varieties of crops is called for".

Dr. S. Arya, Vice-Chancellor, CCSHAU, who presided, said, "The pesticides used on crops, besides killing pests, are absorbed by the plants and enter the human chain food directly or indirectly. Industrial effluents that are being dumped in solid, liquid or gaseous forms have caused social tensions between the industrialist and agrarian sectors. Acid rains have spoiled crops in the vicinity of big factories and legal complications are on the increase between farmers and the industrialists".

Dr. Arya called upon the experts to bring awakening at all levels for a strategy to control the multifarious pollution. "This must be done in active cooperation with private, non-governmental agencies as well as individuals because mere governmental efforts in this direction cannot help us in achieving our goal", he said.

Dr. George Lechner, Director, Max Mueller Bhawan spoke on the theme of the conference and said that it was necessary to bring about a synthesis between man and nature, sciences and culture and of possible therapies for the ills that had been brought about by pesticides, herbicides, fungi-

cides and weedicides, etc. Dr. Lechner said satirically that in fact, these had tended to become "agricides".

BARC-Konkan Vidyapeeth Collaboration in Crop Research

The Bhabha Atomic Research Centre (BARC) is reported to have signed a memorandum of understanding (MoU) with the Konkan Krishi Vidyapeeth (KKV), Dapoli, for collaboration for five years in crop improvement programmes.

BARC and KKV have already collaborated in the development of the high-yielding, large-seeded "Trombay-Konkan groundnut (TKG-19A)", awaiting official release for cultivation. Work on developing the variety was on since 1984.

Under the MoU initialled by Mr A. N. Prasad, Director of BARC, and Dr S.B. Kadrekar, Vice-Chancellor of KKV, the institutions will collaborate in improvements to and multiplication of crop plants, field evaluation of tissue culture-raised plants, techniques for processing various fruit varieties and developing technologies to maintain quality of fruits like mangoes.

All the basic research will be done at BARC and KKV will provide extension facilities.

The Trombay-Konkan groundnut is a bold-seeded bunch-type selection obtained from a cross between two mutants. It has good export potential as its 100-kernel weight is, on an average, 65 gm. For the hand-picked variety, it is 80 gm compared to 35 gm for the average variety of groundnut. TKG-19A matures in 120 days, has

an oil content of 47.5 percent and is recommended for rabi (summer) cultivation in the Konkan, according to BARC.

Radiation-induced mutations enhance the range of variability in plant characters from which

plant breeders can select and combine different, desired characteristics to produce better crop plants. Using this approach, 18 improved Trombay crop varieties — seven of groundnut, three of blackgram, two each of pigeon-

UNIVERSITY NEWS

invites you to contribute to the Special Number it proposes to bring out on the occasion of the

11th New Delhi World Book Fair

being held on 5-13 February 1994.

The themes chosen for the special issue are :

i) My Favourite Reading

You may like to discuss any outstanding book or books that you may have read during the last three years and share the thrill with our readers; or, you may also discuss some outstanding author whose writings have inspired you and have carved a niche of their own in your mindscape

ii) Society Without Books ?

Can we really visualise a society without books ? Books have such a profound influence on our total make up that despite all the technological innovations and media onslaughts, the book is likely to hold its own for all times. The various sub-themes are :

- a) Reading and Thinking
- b) Library and learning
- c) Books and Higher Education
- d) Books for Research
- e) University Publishing
- f) Books in the Information Age
- g) Global Dimensions of Knowledge
- h) What Endures

You contributions should reach the Editor latest by January 10, 1994.

pea, greengram and mustard and one each of rice and jute — have been developed by BARC's nuclear agriculture division and are grown by farmers in different states.

Two varieties of groundnut are grown in Maharashtra and Kerala (TG-3 and TG-17). The semidwarf, bunch-type variety (TG-17) is said to be popular among farmers in Maharashtra. One variety developed by BARC in collaboration with Punjabrao Krishi Vidyapeeth, Akola, (TAG-24) has shown good performance in national yield trials, while another high-yielding bold-seeded variety has been released for the Bihar plateau. The "Somnath" variety, developed in collaboration with Gujarat Agricultural University, has been released for cultivation.

BARC has developed the first yellow seed colour variety of mustard. That and a black seed variety have been released for commercial cultivation in Assam. The Assam agricultural university is the collaborator.

BARC has developed a high fibre-yielding "Tossa" jute variety for cultivation in Orissa, a high-yielding semi-dwarf fine grain variety of rice for the Telangana region of A.P., a mungbean which gives 18 percent to 40 percent higher yield over local check varieties for Maharashtra, and three blackgram varieties for cultivation in Maharashtra, Gujarat and Madhya Pradesh (25 per cent higher yield).

The TAU-1 variety of blackgram is said to be the most popular among cultivators in Maharashtra and it is estimated to cover 500,000 hectares (80 per cent of

the total area under this crop in the state).

New Crop Varieties

The Himachal Pradesh Agricultural University has released a new wheat variety Aradhna (HP-42) for general cultivation in high altitude areas as replacement of the old variety Sonalika which has lost its vigour and has become susceptible to smut. This variety is high yielder and resistant to diseases. For Lahaul valley and other dry temperate areas, a selection of winter wheat (aton) has been screened. This variety besides giving one for fodder gives a good yield of wheat grain assuming importance for both animal and human beings. The university has already released 12 promising varieties of cereals, pulses, oilseeds and forages. Besides, four promising rice-blast resistant varieties of rice, namely, HPU-2216 and RP-2421 for transplanted conditions in mid-hills, VRS-221 for upland conditions, Kasturi basmati to replace T-23 for low-hill areas up to 1,000 m a.m.s.l. and one variety of gobhi sarson HPN-1 are in the final stage

of testing and are being released for general cultivation soon.

Watershed Development

A two-day workshop on watershed development was organised at the Himachal Pradesh Agricultural University. Sponsored by the director of kandi project and organised by the directorate of extension education, the workshop was attended by 15 officers of the state departments of agriculture, horticulture, animal husbandry, officers of kandi project and university scientists.

Dr. R.P.S. Tyagi, Vice-Chancellor, while inaugurating the workshop, said in Himachal Pradesh, where 80 per cent farming was practised as rainfed, dry-land technology coupled with efficient soil and water conservation efforts, was the only way out to promote agriculture.

Although some ambitious projects were in operation for the conservation of water, still there was a lack of assessment in the specific requirement and survey of watershed development spots in the state.

News from UGC

Countrywide Classroom Programme

Between 28th December to 31st December, 1993 the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The programme is presented in two sets of one hour duration each every day from 1.00 p.m. to 2.00 p.m. and 4.00 p.m. to 5.00 p.m. The programme is avail-

able on the TV Network throughout the country.

1st Transmission

1.00 p.m. to 2.00 p.m.

28.12.93

"The Wonder World of Alloys : Non-Ferrous"

"Deaf not Mute : A Change in Perspective"

"Return to Life"

29.12.93

"Pixels and Landscapes"

"Career Counselling: Biology"

"Biotechnology and its Applications"

30.12.93

"Computers in Office Automation"

"20th Century Russian Literature: V. Mayakovsky"

"Rocks"

31.12.93

"Biotransfer of Metallic Pollutants: Chromium-Good and Bad"

"Life Style of Women in Tamil Sangham Literature"

"Katha: Another Way to Communicate"

IIInd Transmission

4.00 p.m. to 5.00 p.m.

28.12.93

No Telecast

29.12.93

"Newspaper Production Process"

"Law Education: Moot Courts"

"Improve Your Smile with Cosmetic Dentistry"

30.12.93

"Silicates"

"Exploring Emotions"

"Environmental Friendly Detergent"

31.12.93

"Environment Education: In and Across the Borders-IV"

"Starfinder-VIII: Orbital Motion"

"The Week Ahead"

News from Abroad

Men are the Weaker Sex

University research in Australia has confirmed what women have long known: men are the weaker sex.

Australian males are more prone to diseases of the heart, liver, stomach and lungs, to cancer, strokes, stress-related illnesses — and car accidents. They are more likely to be alcoholics, drug users and murderers.

Men die at much higher rates from nearly all causes that are non-sex specific. They also quit living much sooner. In the early 1900s, the average woman lasted just 3.6 years longer than a man.

In the present age men expire a good six years before their partners.

Richard Fletcher, a lecturer in health studies at the University of Newcastle, compiled some of these apparently depressing statistics to draw attention to a remarkable paradox: education and health in Australia are male-dominated systems which fail to look after the interests of males.

In a paper presented to a national conference on health and physical education, he documented the alarming situation confronting Australian men. He believes there is little prospect of change.

If the health system is being run by males, and death rates are an important measure of health

outcome then surely males would be expected to have better (that is, lower) death rates than females."

But they don't. He acknowledges that many other factors outside the formal health system affect the well-being of a particular group.

But Mr. Fletcher finds it odd that so little attention is paid to male-female differences in a matter of such significance as when people die.

"What heightens the paradox is that it is precisely during this century, when the domination of the health care system by a male medical profession has increased, that the gap between males and females has widened."

The problem seems to be that males do not readily fit into the category of a "disadvantaged" group in Australia. So they do not attract the attention that others do, such as aborigines, women, and migrants, who are classed as disadvantaged because they are seen to have fewer resources.

Yet for men — and boys — the disadvantages they suffer are in different areas to women and girls.

The emphasis on redressing the traditional disadvantages that females have long endured usually tends to overlook these facts.

Friends Fortify Your Heart

A Nottingham University research team, led by Richard Madeley of the Nottingham School of Public Health, part of the university's medical faculty, discovered that coronary patients with a wide network of friends were more likely to survive a heart attack, and that car ownership, which indicates a higher income and more likelihood of socialising, also raised the chances of survival.

The trial, funded by the British Heart Foundation, aimed to discover whether social isolation and high stress levels decrease a patient's chances of surviving an attack.

The researchers conducted a study of more than 1,300 suspected heart attack patients, aged between 25 and 84, from two local hospitals, as well as from Bath, Northampton, Swindon and York. Each patient completed a questionnaire within a week of their heart attack to assess isolation, stress, personality type and a tendency to depression. These factors were then linked with the patients' survival rates six months, one year and three years from the attack.

Those identified as "socially isolated" had poor contact with family and friends, and were not members of any club or religious group.

They were 49 percent more likely to die following recovery from a heart attack than those with social support.

The study found that 85 percent of women were alive at three years, compared with 81 percent

of men, and that 86 percent of car owners survived for the same period, compared with 74 percent of those without a car.

"We believe that these observations are important for all those concerned with the rehabilitation of patients after a heart attack, whether family, friends or health

professionals," Professor Madeley said.

"There is no doubt that patients with a strong network of friends do better than those without. Further work on the effects of social support on socially deprived patients after heart attacks is now needed."



Indira Gandhi National Open University

Schedule of Telecast for the period 1 January to 31 January, 1994
6.25 a.m. to 6.55 a.m.

Date/Day	Academic Programme	Title
3.1.94 Monday		University with a Difference
5.1.94 Wednesday	Creative Writing in English	Creative Writing — An Introduction
7.1.94 Friday	Management	Problem Solving
10.1.94 Monday	Bachelor's Degree Programme	Sampling in Life Sciences
12.1.94 Wednesday	Computers in Office Mgt.	Office and the Computer Pt. I
14.1.94 Friday	Management	Employee Grievance Handling
17.1.94 Monday	Bachelor's Degree Programme	Jeevvigyan mein Pratichayan
19.1.94 Wednesday	Library and Info. Science	1. Birth of Public Libraries 2. Open Channel
21.1.94 Friday	Management	Accounting in Decision Making
24.1.94 Monday	Bachelor's Degree Programme	A Window to the Universe
26.1.94 Wednesday	Rural Development	Rural Poverty and its Alleviation Pt. I
28.1.94 Friday	Management	Maintenance Management
31.1.94 Monday	Bachelor's Degree Programme	Brahmand ki Khoj

COMMUNICATION

ASCs & IGNOU Programmes

Congratulations to Shri P.H. Sethumadhav Rao for his comprehensive, studied article "Some Thoughts on Academic Staff Colleges" in *University News* of Sept. 27, 1993 (pages 7-16). Under (iii) General Recommendations 4 on page 16 he has very rightly emphasised the importance of Programmes launched by IGNOU. For its true materialisation may I suggest

(i) Full Duty-leave for attending contact-workshops and taking T.E.E. be sanctioned.

(ii) After getting through such IGNOU-Programmes, the full fees and the allied expenditure incurred be reimbursed, and

(iii) Individual Subscription to *University News* be made obligatory to every participant teacher of the orientation/Refresher Course.

B.V. Moghe,
AES College,
Dept. of Economics,
Hingoli - 431 513.

On UGC

This refers to Amrik Singh's article "Revitalizing the UGC" (*University News* dated 6th September 1993) where he has compared U.G.C. in England and in

India. Unlike in India the task of setting academic standards is with the teachers in England. He feels the present arrangement in India is inappropriate at the conceptual level. To quote the author, "No other country has vested both the powers (to co-ordinate and determine standards and also to provide funds) in the same agency. If the experiment has not succeeded so far, it is not because, conceptually speaking it was wrong, the failure lies in our inabilities to implement the concept".

Later while addressing the Gorakhpur University teachers he made the following observation on U.G.C. "Criticising the University Grants Commission

for trying to keep the universities completely in its grip only because it controlled the finances, he said the U.G.C. was not at all competent to poke its nose in academic matters of any university. There were better people in the universities who could take policy decisions regarding themselves" (*University News*, Oct 18, 1993 p. 20-21). If the second statement is applied to U.G.C. in India it would be similar to erstwhile U.G.C. of England. The universities in England have characteristics of a guild.

T.S. Ramanarayan,
Ph.D Student,
I.I.E,
Poona University,
Pune.

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Date 13th December, 1993

REGISTRAR

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

HUMANITIES

Philosophy

1. Barthakur, Sheila. Social change in Assam since independence : Role of women with special reference to Sonitpur District. Gauhati. Dr (Mrs) L Das, Prof, Department of Education, Gauhati University, Guwahati.

2. Chakrabarti, Tarunkanti. John Dewey : His naturalism and its relevance to the persistent problems of philosophy. Calcutta.

3. Gopinathan, K. The critique of ordinary language philosophy of Later Wittgenstein with special reference to language-game theory, JNU. Prof Suman Gupta, Group of Philosophy, Jawaharlal Nehru University, New Delhi.

4. Srinivasa Rao, Duvvuri. Analysis of matter in orthodox schools of Indian philosophy. Andhra.

Religion

1. Shetha, Om Prakash. Buddha dharan ka Nath Sampraday per prabhav. Delhi.

Fine Arts

Drawing & Painting

1. Bhagwat, Sadhna. Indore ke Rajwada ke chitra vaibhav. Vikram. Dr S K Joshi, Department of Drawing and Painting, Govt Madhav College, Ujjain.

2. Jain, Meera. Gwalior ke Jain chitrakala. Jiwaji. Dr (Smt) V K Sinha, Reader, Department of Ancient Indian History, Culture and Archaeology, Jiwaji University, Gwalior.

Music

1. Hukam Chand. Adhunik kal mein shastriya sangeet kee star vridhi mein sahayak tatvon ka mulyankan. Kurukshetra.

2. Jain, Asita. References to Indian music in Jaina works. Delhi.

3. Sharma, Arun Kumar. Thumri ke vikas mein mahila kala karun ka yodhan. Kurukshetra.

4. Srivathsan, Rukmani. Bhashanga ragas : An In-depth study. Delhi.

Language & Literature

English

1. Arunachalam, R. Rhetoric in English and Tamil : A contrastive study. Osmania.

2. Chibber, Roopali Sircar. The twice colonised : Women in African literature. JNU. Shri H C Narang, Centre of Linguistics and English, Jawaharlal Nehru University, New Delhi.

3. Ghosh, Tapan Kr. Labyrinth of life of Arun Joshi and his fictional world. Burdwan. Prof Lakshmi Parasuram, Department of English, University of Burdwan, Burdwan

4. Khader, Tawfiq Khader. A stylistic analysis of drama with special reference to G B Shaw's *Arms and the Man*. Delhi.

5. Khurana, Kavita. The female protagonist in the plays of Tennessee Williams. Nagpur. Dr (Miss) Shernavaz Buhariwala, Head, Post Graduate Department of English, Nagpur University, Nagpur.

6. Shailaja, M. Place and placelessness in the novels of Laney Momurtry. Osmania.

7. Sinha, Sankar Prasad. Literary criticism of the eighteen-nineties : A study of the strategies of assimilation and growth. Burdwan. Prof D K Barua, Department of English, University of Burdwan, Burdwan.

Sanskrit

1. Dash, Usharani. Sankhyatattva Dipikaya : Sameeskshatmak adhyayanam. Jagannath. Dr Nilakantha Pati, Reader, Sarvadarsah, Shri Jagannath Sanskrit Vishwavidyalaya, Puri.

2. Jain, Ranjana Devi. Jain vangmaya mein chatuvirshati Jin : Satvan parampara aur Swayambhu Stotra : Ek anusheelan. HS Gour. Dr B C Jain, Secretary, Madhya Pradesh Sanskrit Academy, Bhopal.

3. Kathuria, Manju. Shri Swami Karpatri Jee ka Sanskrit sahitya ko yodhan. Delhi.

4. Musalgaonkar, Nalini. Saundryalahiri : Ek tatvik vivechan, strot sahitya, darshan evam agamam ke sandarbh mein. Devi Ahilya. Late Dr Laxmannarayyan Shukla.

5. Ray, Suchitra. Mahārāstri as represented in the Setubandha of Prabara Sena : Exhaustive study of vowels only. Calcutta.

6. Sharma, Aruna. Adhunik Sanskrit natakow mein samajik chetana. Jammu. Dr Ramnika Jalali, Department of Sanskrit, University of Jammu, Jammu.

7. Tripathy, Chandra Sekhar. Ashtadhyayam vidihamaneshu nanchghatitsuteshu bhedavichar. Jagannath. Dr Kishore Ch Padhi, Reader and Head, Department of Vyakaran, Shri Jagannath Sanskrit Vishwavidyalaya, Puri.

Pali

1. Chattopadhyay, Jayanti. A critical study of the Bodhisuttavavatana kalpalata. Calcutta.

Punjabi

1. Inderjit Kaur. Multilingualism in Mohammad Bhakhsh's Saiful Maluk. Jammu. Dr Baldev Raj Gupta, Department of Punjabi, University of Jammu, Jammu.

2. Rajinder Kaur. Heer kav da loktatvik adhyayan. Jammu. Dr Davinder Singh, Department of Punjabi, University of Jammu, Jammu.

Hindi

1. Adalja, Nirav. *Hindi ke pragatishheel kavyon ka kavya chintan*. Delhi.
2. Aggarwal, Ritu. *Ghananand kee kavyakala*. Delhi.
3. Balkishan. *Padmakar ke kavya ka kavyashastriya adhyayan*. Kurukshetra.
4. Bansod, Vijay Kumar. *Bhartiya swatantrata sangram aur Makhanlal Chaturvedi ka sahitya*. HS Gour. Prof K K Jain, Prof, (Retd), Department of Hindi, Vidhyapuram, Makarona Camp, Sagar.
5. Bhushnurmath, S R. *Hindi aur Kannada sant sahitya mein samajik jagriti : Hindi Jananmargi nirgun dhara aur Kannada Veerashaiva Sharana sahitya ka ek tulanatmak adhyayan*. Bangalore, Dr P M Vamadev, Reader and Head, Department of Hindi, Sri Nijalingappa College, Rajajinagar, Bangalore.
6. Chidambaranathan, R. *Akhilan evam Amritlal Nagar ke upanyason ka silpavidhan*. CUST Dr N Raman Nair, Prof (Retd) Department of Hindi, Cochin University of Science and Technology, Kochu.
7. Daljit Kaur Mohan Rakesh ke natya sahitya mein abhinay kala aur samvad shiipa. Kurukshetra.
8. Garg, Neel Kamal. *Giriraj Kishore ke upanyason ka samagra anusheelan*. HS Gour. Dr Shyamsunder Dubey, Govt College, Hatta, Damoh.
9. Haldar, Kandhilal. *Kamayani ke shabdon ka arth tatvik adhyayan* Durgawati. Dr T N Shukla, Department of Hindi, Rani Durgawati Vishwavidyalaya, Jabalpur.
10. Khedade, Mansha Ram. *Chhattisgarh mein Kabirpanth ka parvarti vikas*. Vikram. Dr (Mrs) Urmi Sharma, Govt Girls College, Ujjain.
11. Sharma, Hemvati. *Ramcharitmanas ke asur patra*. Delhi.
12. Sharma, Kusum. *Pt Rameshwar Shukla 'Anchal'* ke gadya sahitya ka mulyankan Ravishankar. Dr S J Kekre, Prof, Department of Hindi, Govt Girls College, Durg.
13. Singh, Satyabhava. *Nagarjun sahitya mein yugeen sandarbh*. Ghasidas. Dr Jagmohan Mishra, Konni, Bilaspur.
14. Suri, Sharda. *Sathottari Hindi kavita mein trasad tattva* Delhi

Urdu

1. Fareeda Begam. *Literary contribution of Dr Gianchand Jain*. Osmania.
2. Mohd Noor Islam. *Qazi Abdulwadood kee ilmi wa adabi khidmat*. AMU. Prof Noorul Hasan Naqvi.
3. Salman Abid. *Mustashriqeen kee Urdu khidmat*. Osmania.
4. Zill-E-Huma. *Delhi mein Urdu afsana, 1900-1947* Delhi.

Bengali

1. Bandyopadhyay, Amarnath. *Bangla chhotogalpe Jibon satya rupayaner ek bishesh dik : Jantrana-o-bedanar rupshilpa*. Calcutta.

Marathi

1. Kale, Neelima Malharao. *A critical study of P B Bhave's contribution as a short study story writer*. Delhi.

Arabic

1. Abun Nasar. *Contribution of Mahmood Tayyur to Arabic literature*. AMU Prof Mohd Rashid, Department of Arabic, Aligarh Muslim University, Aligarh.

2. Md Rupchand Ali. *Concept of Allah and his unity in Islam*. Gauhati. Prof M Kutty, Janaki Madhavan, P O Payyammon, Konni, Kerala.

3. Safder Sultan. *Development of auto-biographical literature in Arabic since 1952 A D*. AMU. Prof Mohd Rashid, Department of Arabic, Aligarh Muslim University, Aligarh.

Telugu

1. Ansari, Md Shahbaz. *Urdu Hindi ke tanzia aur mazahia mazamin ka taqabuli mutala, azadi ke bad* JNU Prof S R Kidwai, Centre of Indian Languages, Jawaharlal Nehru University, New Delhi.

2. Devaki Reddy, C. *Language variations in Telugu : A sociolinguistic study* JNU. Dr Vaishna Narang, Centre of Linguistics and English, Jawaharlal Nehru University, New Delhi

3. Lakshmi, Kolluri. *Tirupati Venkata Kavula Devi Bhagavathamu : Pariseelana Telugu*

4. Mallaiah, K. *Telugulo pragathi sheela katha sahityam* Osmania.

5. Narasimha Rangacharya, M. *Characterisation of rakshasas in Ramayana Kalpavrukshamu with special reference*



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ence to Ravana. Kakatiya. Prof K Suprasannacharya, Department of Telugu, Kakatiya University, Warangal.

6. Rukmini Kumari, K. Gurajada rachanalu : Samajika chaitanya. Kakatiya. Dr G Venkata Rathnam, Head, Department of Telugu, C K M Post Graduate College, Warangal.

Geography

1. Dash, Naladri Ranjan. Natural resource base and the process of regional development in the selected tribal areas of India : A geographical analysis. JNU. Prof Ajiazuddin Ahmad, Centre for Study of Regional Development, Jawaharlal Nehru University, New Delhi.

2. Kundu, Krishna. The geomorphology of the Purulia Sustania Upland. Burdwan. Dr P K Sen, Prof, Department of Geography, University of Burdwan, Burdwan.

3. Patnaik, Bijoy Kumar. Terrain evaluation for agricultural land utilisation in the Chhatrapur Subdivision, Orissa. Burdwan. Dr N Prasad, Reader, Department of Geography, University of Burdwan, Burdwan

4. Verma, Vikram. Nimar ka Krishi bhugol. Vikram Dr Surender Singh, Department of Geography, Govt Madhav Science College, Ujjain.

History

1. Anandhi, S. Middle class women in colonial Tamil Nadu, 1920-1947 : Gender relations and the problem of consciousness. JNU Prof K N Panikkar, Centre for Historical Studies, Jawaharlal Nehru University, New Delhi

2. Bam, Shakuntala. Malwa mein Maratha shakti ka abhodaya aur us mein Yashwant Rao Holkar ka yogdan Vikram. Smt Prabha Shrinivasulu, 94, Sethi Nagar, Ujjain.

3. Banerjee Nadda, Mallika. An analytical study of the process of urbanisation of Jabalpur, 1882-1961. Durgawati. Dr J P Mishra, Head, Department of History, Rani Durgawati Vishwavidyalaya, Jabalpur.

4. Chaturvedi, Diwaker Nath. 1947 ke Bharat vibhajan ka itihasik evam rajnitik adhyayan. Jiwoji. Dr B S Aggarwal, Department of Political Science, M L B Arts and Commerce College Gwalior and Dr A S Rajput, Department of History, Maharaja Mansingh Mahavidyalaya, Gwalior.

5. Chitgopekar, Nilima M. Evolution of Sivaism in Madhya Pradesh, C. AD 550-1200. Delhi.

6. Jain, P C. Madhyakaleen Malwa mein Jain dharam, 700 levi se 1800 levi tak. Vikram. Dr S S Nigam, Kaveri Research Institute, Keshva Nagar Colony, Nilganga, Ujjain.

7. Kashmiri Lal, Caste, religion and nationalism : A study of District Karnal, 1805-1947. Kurukshetra.

8. Oraon, Jyoti Lal. India and the Tamil Problem of Sri Lanka, 1945-1987. Ranchi. Dr A P Sharma, Head, Department of

History, Ranchi University, Ranchi.

9. Padhi, Paresh Ranjan. Economic history of Orissa : A study of British trade policy. Sambalpur. Prof P K Mishra, P G Department of History, Sambalpur University, Jyoti Vihar, Beria.

10. Rajesh Ranjan. Commodities in Ancient India from earliest period upto 1200 AD. Magadh.

11. Sharma, Ajay Kumar. Chhattisgarh ke Kandar Nahar Satyagraha ka itihasik anusheelan, 1900 se 1947. Ravishankar. Dr (Smt) Shanta Shukla, School of Studies in History, Pt Ravishankar Shukla University, Raipur.

12. Sharma, Shanta R. Social and cultural patterns in Rajasthan, c. AD 700-900 as depicted in contemporary Prakrit works. Delhi

13. Trivedi, Preety. Classification of architectural and sculptural styles of Northern India. Nagpur. Prof Ajay Mitra Shastri, Head, Department of Ancient Indian History, Culture and Archaeology, Nagpur University, Nagpur.

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UNIVERSITY OF POONA

Applications are invited for various teaching posts as under :

Sr. No.	Department	Post Open/ Reserved for	Subject/ Specialisation
1	2	3	4
Part A - Permanent Posts			
Professors (8)			
1. Chemistry	ST	*	Inorganic Chemistry
2. Physics	SC	*	Accelerator & Nuclear Physics/Atmospheric Space & Plasma Physics/Material Science & Condensed Matter/Microwave
3. Botany	ST	*	Experimental Botany
4. Zoology	ST	*	Entomology
5. Zoology (Biotechnology)	SC		Biochemistry of Macro-molecules/ Molecular Biology.
6. Statistics	SC		Substantial research contributions as evidenced by publications and guidance for the Ph.D. degree in one or more of the following areas I) Probability, Stochastic processes, Inference in stochastic processes. II) Parametric and Non-parametric and Bayesian Inference III) Design and Analysis of Experiments and Sample Surveys IV) Statistical Methodology and Applications in Industrial, biological and ecological problems
7. Statistics	Open		Same as above
8. Inter-disciplinary Studies (Co-ordinator)	ST		Humanities and Social Sciences
Readers (17)			
9. Chemistry	DTNT	*	Physical Chemistry/Kinetics/Thermodynamics/Spectroscopy/ Electro Chemistry/Nuclear and Radiation Chemistry.
10. Chemistry	SC		Organic Chemistry
11. Chemistry	SC		Theoretical Chemistry/Physical Chemistry
12. Physics	DTNT		Material Science/Solid State Physics/Accelerator Physics/ Biophysics
13. Computer Science	Open		Computer Science or related areas
14. Zoology	DTNT	*	Cell Biology
15. Zoology	ST	*	Developmental Biology
16. Zoology (Biotechnology)	SC		Applied Microbiology
17. Zoology (Biotechnology)	Open		Cell Engineering
18. Geography	ST	*	Climatology
19. Mathematics	ST	*	Algebra/Analysis/Topology/Applied Mathematics
20. Marathi	SC		आषुनिक मराठी साहित्याचा अभ्यास आणि आषुनिक मराठी - वाङ्यय- इतिहासाचा अभ्यास
21. Foreign Languages	ST	*	French
22. Foreign Languages	SC	*	German
23. Jaykar Library (Dy. Librarian)	DTNT		---
24. Library & Information Science	SC	*	Information Technology
25. Law	ST	*	Commercial/Industrial/Labour/Constitutional and Administrative Laws/Criminal Laws/Personal Laws/Indian and English Legal History.
Lecturers (14)			
26. Chemistry	SC	*	Physical Chemistry
27. Chemistry	SC	*	Inorganic Chemistry

28. Chemistry	SC	*	Thermodynamics/Magnetic Resonance/Theoretical Chemistry/ Solid State Chemistry
29. Physics	SC		Lasers/Plasma Physics/ Low Temperature Physics
30. Computer Science (MCA)	SC		B.Tech In Computer Science with two years teaching experience or Master's Degree in Computer Science or equivalent Degree of M Tech or equivalent Degree in any other subject provided the candidate has demonstrated his/her knowledge of Computer Science by Research and/or Teaching in Computer Science area.
31. Botany	SC		Bryophytes-Pteridophytes/Cytogenetics/Physiology/ Psychology/Micology/Paleobotany/Ecology/ Pharmacognosy/Angiosperms
32. Zoology	ST	*	Biophysics or Genetics
33. Geography	ST		Population & Settlement Geography
34. Mathematics	ST		Applied Mathematics/Geometry/Differential Equations/Numerical Analysis/Algebra
35. Geology	ST	*	Economic Geology and Mineralogy.
36. Marathi	DTNT	*	a) Linguistics Study of Marathi b) Modern Marathi Literature
37. Foreign Languages	DTNT	*	French
38. Law	ST	*	Business Law/Mercantile Laws/Taxation Laws
39. Lalit kala Kendra	Open		Music/Dance/Dramatics

Part B - Non Permanent Posts

Professors (5)

40. Electronics Science	Open		1) Semiconductor Device Technology with Special reference to Microelectronics Devices 2) Microprocessor Electronics and Integrated Electronics Systems
41. Geology	Open		Metamorphic Petrology & Structural Geology Stratigraphy and Palaeontology/Remote sensing as applied to Geology/Ground Water Geology and Environmental Geology
42. Politics & Public Administration	DTNT	*	Political Thought in Maharashtra Regional Area
43. Academic Staff College (Director)	Open		Social Sciences/Humanities/Commerce/Science
44. Commerce & Management Science	Open		Management Science/Commerce/Economics

Readers (2)

45. Mathematics	Open		Analysis/Functional Analysis/Algebra/ Topology/Discrete Mathematics
46. Academic Staff College	ST	*	Arts / Mental, Moral & Social Sciences/Science/ Commerce/Education.

Lecturers (8)

47. Physics	SC		Laser/Bio-Physics/Electronic/Atmospheric Science/Space and Plasma Physics/Nuclear Physics/Material Science/Solid State Physics/Theoretical Physics.
48. Physics	DTNT		Material Surfaces/Theoretical Material Science.
49. English	ST		Language
50. Academic Staff College	Open		Arts/Commerce/Mental, Moral & Social Sciences/Science/ Commerce/Education.
51. Commerce & Management Science (M.B.A.)	SC		Commerce/Management
52. Instrumentation Science	SC	*	Digital and Communication Instrumentation/ Electronic Instrumentation.

53. Instrumentation Science	DTNT	Analytical Instrumentation/ Biomedical Instrumentation
54. Instrumentation Science	DTNT *	Process Control Instrumentation/Power Instrumentation

Pay Scales :

Professor : Rs. 4500-7300 Reader : Rs. 3700-5700 Lecturer : Rs. 2200-4000

* Indicates reserved only for the candidates belonging to SC/ST/DTNT as mentioned against the post in the Advertisement and hence applications of such candidates will only be considered

Professor : An eminent scholar with published work of high quality actively engaged in research with 10 years of experience in postgraduate teaching and/or research at the University/National level Institutions, including experience or guiding research at doctoral level

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

Reader : Good academic record with a doctoral degree of equivalent published work. Candidates from outside the University system in addition shall also possess, atleast 55% marks or an equivalent grade at the Master's degree level. Eight years experience of teaching and/or research including up to 3 years for research degrees and has made some mark in the areas of scholarship as evidenced by quality of publications, contribution to educational renovation, design of new courses and curricula.

Lecturer : Good academic record with atleast 55% marks or an equivalent grade at Master's degree level in the relevant subject from an Indian University or an equivalent degree from a foreign University

Candidates besides fulfilling the above qualifications should have cleared the eligibility test for Lecturers conducted by UGC, CSIR or similar test accredited by the UGC

Candidates who wish to be considered for more than one post must make separate application for each of the posts.

The candidates belonging to open category who fulfill the conditions of qualifications, experience etc may send their applications for the posts reserved for candidates belonging to SC/ST/D.T.N.T. Their applications will be considered if the suitable candidates are not available from the particular category of the reserved class

Candidates are requested to send the applications in the prescribed form in two copies so as to reach the University Office on or before 31-1-1994

Sets containing application forms with two copies are available in Publication Section of the University at the cost of Rs 50/- Application form will be sent in self-addressed envelope (23 cms x 20 cms) with Stamp of Rs. 6/- and postal order of Rs 50/- is sent to the Registrar, University of Poona, Ganeshkhind, Pune 411 007

Notes :

1. Candidate belonging to reserved category must produce a caste certificate to that effect from the Magistrate specifying clearly the name of community to which he/she belongs and He/She will be considered only if his/her caste is enlisted in the approved list of Maharashtra Government
2. One who is already employed must submit his/her application through proper channel.
3. Some of the conditions may be relaxed in case of exceptionally capable candidate.
4. No application will be entertained received after last date.
5. The University will not be responsible for postal delay if any.
6. Applicants are also informed that the appointment of selected candidates will be made subject to the condition that he/she may have to work at Pune or any place under the jurisdiction of the Poona University.

The details regarding specializations for each post will be available along with the application form.

CLASSIFIED ADVERTISEMENTS

UNIVERSITY OF CALICUT GENERAL AND ACADEMIC BRANCH - II CALICUT UNIVERSITY P.O.

No. GA.II/Cl/2871/92

Dated : 29/11/1993

NOTIFICATION

Applications are invited from eligible candidates for appointment to the following teaching posts in the Departments of this University.

Sl. No.	Department	Category	No. of Posts	Nature of Vacancy	Reservation/ Open Competition	Area of Specialisation
1.	Education	Professor	1	Permanent	Open	
		* Reader	1	Permanent	Open	
		Lecturer	4	(1) -do- (2) -do- (3) -do- (4) -do-	Open O.B.C. Open S.C/S.T.	
2.	Mathematics	Lecturer	2	(1) -do- (2) -do-	Open S.C/S.T.	
3.	Statistics	Reader	1	Permanent	E.T.B.	
		Lecturer	1	Permanent	S.C/S.T.	
4.	Life Science	Lecturer	3	(1) Temporary (2) -do- (3) -do-	Muslim Open L.C/A.I.	Bio-Chemistry Physiology
5.	Psychology	Lecturer	2	(1) Permanent (2) Permanent	Muslim Open	
6.	Botany	Professor	1	-do-	Open	
		Reader	1	-do-	Muslim	
		Lecturer	1	-do-	L.C/A.I.	
7.	Library Science	Lecturer	1	-do-	S.C/S.T.	
8.	Philosophy	Lecturer	1	-do-	Muslim	
9.	Hindi	Lecturer	1	Temporary	Muslim	

Note : * Regularisation of appointment to this post will be made only subject to finalisation of the O.P. pending before the Hon'ble High Court of Kerala.

2. Scale of Pay (UGC Scale) :

Professor : Rs. 4500-7300

Reader : Rs. 3700-5700

Lecturer : Rs. 2200-4000

3. Qualifications for Professor, Reader and Lecturer : As per the Calicut University Regulations as amended on 14-05-1992.

4. How to apply : Candidates are required to apply in the prescribed application form, which can be obtained from the undersigned on requisition by remitting Rs. 100/- towards the cost of application form, along with a self-addressed stamped (Stamps worth Rs. 10/-) envelope of size 25 x 12 c.m.

Candidates from abroad may apply on plain paper indicating the post applied for, along with the copies of certificates/documents in proof of their qualifications, age, experience, etc. by remitting an application fee of Rs. 250/- by Demand Draft in

favour of the Finance Officer, University of Calicut, Tenhipalam and they will be allowed to submit their applications 15 days past the last date of receipt of application.

5. Relaxation in remittance of the cost of application form :

(i) Candidates belonging to S.C/S.T. communities, physically handicapped; and Ex-servicemen eligible for pension are exempted from remitting the cost of application form; provided, they produce necessary certificate to prove their eligibility along with requisition for application forms.

(ii) Employed candidates belonging to S.C/S.T. communities should remit Rs. 15/- towards cost of application form, provided they produce community certificate from the competent authority.

6. Mode of remittances :

(i) Candidates from outside Kerala State : By Indian Postal Order in favour of

the Finance Officer, University of Calicut, payable at Tenhipalam.

(ii) Candidates from within the state should credit their remittance to the Head of Account :

(a) 8443-00-106-CUF . For Treasuries in Malappuram District.

(b) 8658-102-96-LB.CUS : For Treasuries in other Districts.

(c) No. II Current Account of the Finance Officer at the S.B.T., Tenhipalam Branch : For making remittances at C.U. campus .

7. Age limit, Qualifications, etc. for each post are as prescribed in the detailed notification, which will be issued along with the application form

8. The last date for receipt of the application completed in all respects, by the undersigned in the University office is 15th January, 1994.

Prof. T.K. Unnir
REGISTRAR

ENGINEERING COLLEGE KOTA

(An Autonomous Institution of
Government of Rajasthan)

Advertisement No. ECK/Estt/93/4

Applications are invited for posts of Professors in Electrical (2), Computer (1), Electronic Instrumentation & Control (1), Production & Industrial (1), Readers in Electrical (2), Electronics & Communication (2), Electronic Instrumentation & Control (2), Computer (2), English & Humanities (1) and Librarian (1), Foreman (Mechanical) (1) on prescribed form. Details of specialization and qualification required & Pay Scales (AICTE NORMS), and Terms & Conditions are obtainable from the College by sending in Indian Postal Order of Rs. 25/- for General and Rs. 12.50 for S.C/ST candidates payable to the Registrar, Engineering College, Kota alongwith a self addressed envelope 11" x 5" having a stamp of Rs. 2/-.

Last date of receipt of application is 7.1.94

REGISTRAR

CENTRE FOR SOCIAL STUDIES**South Gujarat University
Campus****SURAT 395 007**

The Centre, a multi-disciplinary Social Sciences research institute, invites applications for the positions of Senior Fellows, Fellows and Associates. Scholars specialised in agricultural and industrial economics, sociology, political science, anthropology and law, and interested in studying Western India and Gujarat in particular, and willing to join on tenure basis shall be given preference. Those who are interested may send their bio-data giving details about research experiences, interests, publications, etc. to The Director before 15th January 1994.

**INDIAN ASSOCIATION FOR
THE CULTIVATION OF
SCIENCE****JADAVPUR****CALCUTTA - 700 032****IACS/ADVT/P/3/93**

Applications in prescribed form (six copies each with reprints) available with the Association are invited and will be received by the Registrar, Indian Association for the Cultivation of Science, Jadavpur, Calcutta 700032 upto February 15, 1994. Permission of the present employers of the applicants, wherever necessary, should be furnished. The post carries allowances as are admissible to the Central Government employees stationed at Calcutta. The appointment may not be confined to applicants only. Application form may be obtained by sending self-addressed envelope of size 27 x 12 cm. affixing postage stamp of Rs. 2.00.

One Reader in the Department of Spectroscopy in the Grade of Rs. 3700-125-4950-150-5700/-.

Qualifications (Essential) : (i) Good academic career with M.Sc. Degree in Physics; (ii) Doctorate Degree in Experi-

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(Desirable) : (i) Preferably below 40 years of age; (ii) Research experience preferably in the front line fields of Experimental Spectroscopy/Optics; (iii) To arrange and develop first rate research and development programmes of National and International recognition.

If suitable person for the post is not available, the scale of Sr. Lecturer/Lecturer may be offered to the candidate.

**RAJASTHAN AGRICULTURAL
UNIVERSITY
BIKANER****NOTIFICATION**
Dated : 10.12.93

Following amendments in the advertisement No 1/93 are notified :

1. The last dates are extended for obtaining application form upto 15.1.1994 and for reaching the completed forms upto 31.1.1994.

2. Under General Note :

The candidates clearing eligibility test conducted by RPSC and UGC and

JAI NARAYAN VYAS UNIVERSITY, JODHPUR**(Establishment Section)****No. JNVU/ESTT/NT/93/10535****Dated : 11.12.93****Advt. No. 119/93-94**

Applications are invited on the prescribed form obtainable from the office of the Registrar, Jai Narayan Vyas University, Jodhpur on payment of Rs. 10/- in cash for the following posts so as to reach the undersigned on or before 27-1-1994 upto 4.00 p.m. Those who desire application form by post, should send Demand Draft for Rs 10/- payable in favour of Registrar, Jai Narayan Vyas University, Jodhpur alongwith self-addressed envelope of 27 x 12 cms size affixing postal stamps worth Rs. 8/-.

Applications received after due date shall not be entertained

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			Gen	SC	ST	
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(2)	Controller of Examination	1	1	-	-	3200-100-3500-125-4625.
(3)	Deputy Registrar	4	2	1	1	3000-100-3500-125-4500.
(4)	Assistant Registrar	5	2	2	1	2200-75-2800-100-4000.

NOTE :

- (1) The University reserves the right to increase or decrease the number of posts and/or not to fill up the posts, if deemed necessary.
- (2) All posts are permanent or likely to be made permanent.
- (3) Details of Qualifications alongwith general conditions, etc. will be supplied to candidates alongwith application forms

REGISTRAR

those who obtained M.Phil. degree upto 31.12.92 are exempted from the condition of passing the eligibility test.

REGISTRAR

**UTKAL UNIVERSITY
VANI VIHAR, BHUBANESWAR**

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Dated : 6/12/93

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The details of qualification, experience and pay, etc. will be made available alongwith the form.

P.K. Patro
REGISTRAR

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BANGALORE - 560 034

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2. Engineer Associate/Research Associate — 3 Posts (SC/ST)

Scale of Pay : Rs. 2000-60-2300-EB-75-3200-100-3500

Qualifications (Minimum) : Master's Degree in Physics/Astronomy with 1st Class and with one or two year's research experience.

OR

First Class Master's Degree in Physics with electronics or BE in electronics with at least one year's experience in microprocessors and assembly level programming in scientific instrumentation.

Desirable : Experience in the use of advanced mathematical techniques and advanced level programming with fast computers like DEC or VAX systems.

OR

Good knowledge of analog or digital circuits.

3. Senior Research Assistant/Senior Technical Assistant — 1 Post (SC)

Scale of Pay : Rs. 1640-60-2600-EB-75-2900

Qualifications (Minimum) : Master's Degree in Physics/Astronomy or good Bachelor's Degree in science with Diploma in Electronics.

How to Apply :

1. Applications on plain paper stating (a) Post applied for, (b) Name in full (in block letters), (c) Father's/Husband's Name, (d) Place of birth, (e) Date of birth, (f) Present address, (g) Permanent address, (h) Address for communication, (i) Father's/Husband's address and occupation, (j) State your religion and community (attach a certificate from the Revenue Authority in support of your claim as SC/ST), (k) Qualifications giving names of the institution attended, examinations passed with year and grade commencing from School Leaving Certificate Exam., (l) De-



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• W A N T E D •

Applications are invited for the following posts. Please apply with your BIO-DATA accompanied by a D/D or IPO of Rs. 10/- in favour of Principal SSGM College of Engineering, Shegaon 444 203 within 20 days from the date of Advertisement.

FACULTY	POST REQUIRED
1) Electronics Engg.	Prof/Asst. Prof.
2) Computer Science Engineering	Prof/Asst. Prof.
3) Electrical (Electronics & Power System) Engineering	Prof/Asst. Prof.
4) Mechanical Engg.	Prof/Asst. Prof.

Qualifications and pay scale as per AICTE norms. Retired and experienced candidates will be preferred with higher start.

**DR. D.G. WAKDE
PRINCIPAL**

**S.S. PATIL
CHAIRMAN**

tals of previous experience, (m) Details of present employment, address of the employer and present salary should be sent to the Senior Administrative Officer, Indian Institute of Astrophysics, Bangalore - 560 034, on or before 18-02-1994.

2. Separate applications are required for each post. Please write clearly the post applied for and advertisement number on the envelope.

3. All the above posts carry allowances admissible under the rules of the Institute, which are the same as applicable to Central Government employees.

4. Those employed in Government Departments/Public Sector Undertakings should apply through proper channel.

5. Age limit for all the above positions is 40 years as on 18-2-1994.

6. Out station candidates called for interview will be paid second class return Railway/Bus fare by the shortest route.

No interim enquiries will be entertained. Canvassing in any form will be a disqualification.

ASSOCIATION OF INDIAN UNIVERSITIES

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Applications are invited for appointment of Research Investigators (two) on a consolidated salary of Rs. 1000/- p.m. till the period ending 31-3-1994, likely to be extended, for ICSSR's project on 'Resource Mobilization by Indian Universities'.

Interested candidates should have Master's Degree in Social Sciences, preferably Economics/Statistics. The candidates having research experience in the field of economics of education would be preferred.

Applications should be addressed to Dr. M.M. Ansari, Project Director, Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi - 110 002, so as to reach him on or before January 10, 1994.

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